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April 1946

CONSUMERS' RESEARCH

Bulletin

INCOMPLETE FILE

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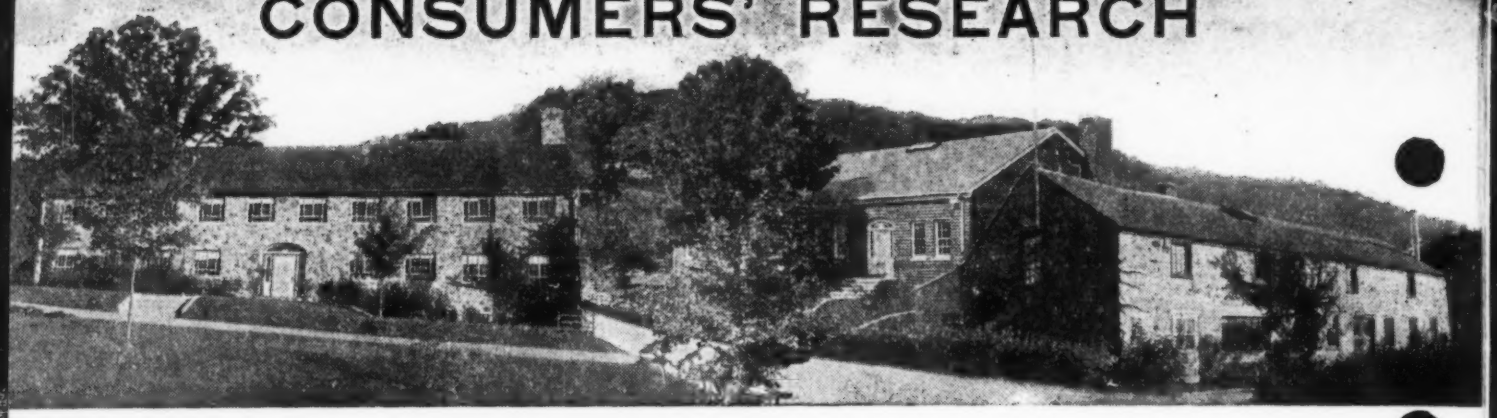
CONSUMERS' RESEARCH



Vol. 17 • No. 4 **BULLETIN** April 1946

Off the Editor's Chest

THERE is such a barrage of words issuing from Washington, D.C., about the importance of holding the line on prices, keeping down the cost of living, and preventing an imminent and dangerous inflation (that presumably only public officials understand and can master), that the person who reads only headlines and has little to do with making the family purchases undoubtedly gets the idea that something is really being done for him in this respect. The OPA representatives beat their breasts and proclaim their earnest desires to protect the low income group from disastrous price rises; they suggest that anyone who is against the OPA is necessarily a greedy profiteer, black marketeer, a speculator gambling on sky-high inflation, or some other sort of unpleasant character. The tumult and the shouting are all that the man in the street hears, and he rarely gets a chance to look at the record to see whether the OPA really deserves to be continued on the basis of past performance.

First of all, take this business of inflation. It was not so long ago, in the months immediately preceding V-J Day, that the government economists were preparing, on the basis of elaborate studies made with taxpayers' money, for a period of deflation and serious unemployment immediately after the end of the war. It is now admitted that all these forecasts were wrong. As the economists concerned so tactfully put it, they "underestimated consumer demand," "overestimated potential production" and "forgot to allow for persons who would leave the labor market after the war emergency had ended." At any rate they are reported to be now "revising their estimates to predict unprecedented prosperity and warn of inflation." Just what factors they may be overlooking in their *present* prophecies only time will tell. If we do not have inflation, no doubt credit will be claimed by the OPA, even though its contribution may have been only the issuance of a steady stream of press releases.

From time to time CR has pointed out examples of the OPA's holding the price line—on paper—which has had the effect of making many products completely unavailable because the manufacturer or producer could not afford to subsidize consumers by disposing of the goods at a price below his cost of production. Early in 1946, one of the weekly news magazines reported the case of a hosiery mill that went back to making its pre-war type of hosiery after its Army contracts had been cancelled. The mill found that its production costs had increased and that it would require a price of $2.52 a dozen to operate at a profit. The OPA insisted that it charge its 1942 price of $2.27½. Finally as a solution to the impasse, an OPA official is reported to have suggested that the company use a little nylon in the heel and toe and call it a new number. With such a change, a higher price could be charged for the stockings.

During the early part of 1946 when the propaganda machine was busily grinding out slogans that were designed to win a tide of overwhelming approval for the "hold the line" program, several radio commentators were heard to say that it was

(Continued on page 25)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, A. R. Greenleaf, and Charles L. Bernier. Editorial Assistant: Mary F. Roberts.

Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; cr—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high. Note that price and quality are completely differentiated in CR's listings; **a quality judgment is independent of price**; 45, 46—year in which test was made or information obtained or organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least a month before it is to take effect, accompanying your notice with statement of your old address with name in full. At least three weeks' notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel.

¶*CR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.*

★★★For a brief cumulative index of 1946 BULLETINS preceding this issue, see page 26.

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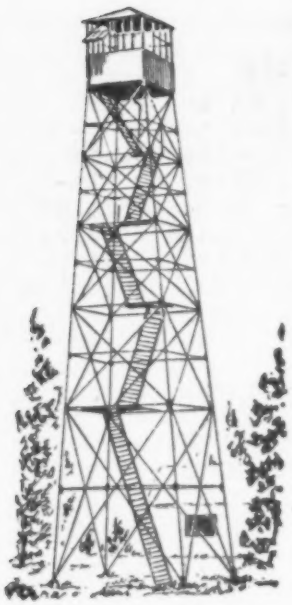
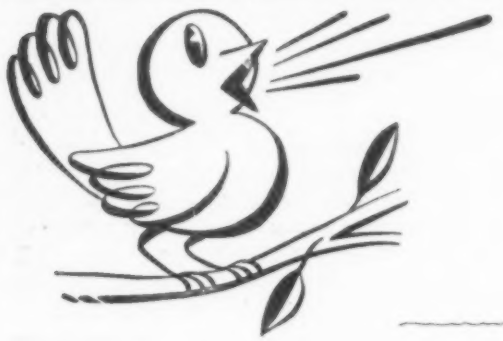


The Consumers' Observation Post

COFFEE is not likely to be really scarce, according to an analysis of the supply on hand and on order by importers. Rumors sweep local communities of a forthcoming scarcity and anxious housewives clean the grocer's shelves, all of which is very helpful to the grocer who wants to dispose of supplies packaged in wartime containers. Let it be noted, however, that coffee in vacuum pack containers is not the same as freshly roasted and ground coffee by any means. The chief stumbling block to an unlimited supply and a higher grade of coffee is the OPA's insistence on giving a 3-cent-a-pound subsidy to importers instead of allowing a higher price ceiling. Latin American producers, it appears, do not like to do business on the OPA basis.



It's Not Only the Early Bird Who Is Served —

MEAT THREE TIMES A DAY—

F. J. Schlink and M. C. Phillips

THIS book sets forth the interesting theory that the boundless energies of the American people, their unmatched ability to get things done in the face of great obstacles are due in part to the stamina and drive derived from their earlier habit of eating meat three times a day. The book discusses in detail a considerable body of evidence showing that people who eat meat freely often have a striking resistance to colds, bodily weakness, and various infectious diseases. Advice is given on what to look for in buying meat and how to cook it to secure the highest palatability and nutritive value.

SPECIAL CR EDITION **$1.50**

THE 1945 ANNUAL CUMULATIVE BULLETIN, which summarizes a wide range of CR's previous findings in the fields of Food, Household Appliances, Heating Equipment, Textiles and Clothing, Medicine and Hygiene, Home Maintenance and Repair, Cosmetics and Toilet Supplies by brand name, is again available. Although our initial supply was exhausted early in February, we were fortunately able to locate paper for a limited additional number.

New Subscribers who wish to obtain a copy of this 200-page edition to guide them in making purchases until the new 1946 edition is issued (probably in September 1946) will find a convenient order blank on the next page.

THOSE BEAUTIFUL BIG SOAP BUBBLES that have been demonstrated in recent months in many five-and-dime stores are made tough and long lasting by adding glycerin to the soap and water mixture. According to one formula, 1 ounce of castile or palm oil soap is dissolved in 8 ounces of distilled water. When the soap has thoroughly dissolved, 4 ounces of glycerin are added and thoroughly mixed. After the mixture is allowed to stand for a time, the bottom part becomes clear and should be siphoned off for future use. Color or fluorescein may be added for brighter bubbles, but care should be taken in using such mixtures indoors because of the tendency of the bubbles to stain floors, walls, and furniture. Incidentally, toughened soap bubbles have their scientific function, and such a mixture is reported to have been used in connection with an instrument for calculating stresses in airplane parts.

* * *

COSMETICS CONTAINING HORMONES have been on the market for some twenty years, but have only recently figured heavily in newspaper and magazine advertising. Such products have been under investigation for some time by the Food and Drug Administration. Primarily the object of the FDA's researches is to determine whether hormone cosmetics are potentially harmful to their users and whether the current advertising claims are so extravagant as to constitute "misbranding." Without waiting for the FDA's findings, the Louisiana State Board of Health has jumped the gun, according to a weekly business magazine, and banned the use or sale of all cosmetics and beauty preparations containing estrogenic or ovarian hormones, any chemical derivatives of hormones, or any chemical products with similar properties. The chief factor in bringing about this action was the advertising claims that the use of such products restored sexual youth, whereas the Louisiana Board held that the amount of hormones present was insufficient to produce any effect.

* * *

THE WARTIME MENUS of various hotels and railway dining cars have come in for some well-deserved criticism by Lucius Beebe in the January issue of Gourmet Magazine. At the Broadmoor Hotel in Colorado Springs, for example, where suites cost up to $75 a day, he found peanut butter sandwich listed as an entree on the dinner menu, while meat balls and spaghetti was the most luxurious item available. By way of contrast, in the Strator Hotel of Durango, Colorado, he found individual porterhouse steaks weighing four pounds each. Among the railroads, he considered that the Pennsylvania gave the worst service, the poorest food, and the smallest portions, while good food and amiable service was to be found even in times of shortages on the Baltimore and Ohio, the New Haven, the Twentieth Century Limited, and the City of San Francisco.

(The continuation of this section is on page 29)

Consumers' Research, Inc.
Washington, N. J.

Please enter my order as checked. It is understood that my handling of any CR material which is marked "The analyses of commodities, products, or merchandise appearing in this issue of the Consumers' Research Bulletin are for the sole information of Consumers' Research subscribers" will be in accordance with that direction.

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☐ **I enclose $1.00 (Canada & foreign, $1.25) for a copy of the 1945 Annual Cumulative Bulletin. Since I am a subscriber to Consumers' Research Bulletin (12 issues), I am entitled to the special rate.**

Lotions for the Hands

THE hand lotions of today represent a considerable improvement in ease of application and odor over the home rendered mutton tallow of Grandmother's day. There is no doubt, however, that mutton tallow was effective in soothing the irritation of chapped hands and helping to heal their roughness. Looking at it from another point of view, however, no one today would want to rub on mutton tallow just before putting on her gloves to attend an afternoon club meeting, but if Grandmother did find time to attend an afternoon club meeting she probably used a lotion of rose water, tragacanth, and glycerin, an old stand-by of her day.

There are the two functions to consider in picking a hand lotion: the replacement of the natural oil in the skin by some oil or grease that will effectively lubricate the surface, and the desire for a product that gives a pleasant psychological feeling of smoothness on the skin and temporarily relieves the sensation of dryness.

Replacing the natural oils of the skin that have been lost through exposure to weather or too frequent immersion of the hands in soapy water is the first requirement of a lotion designed to be used on rough chapped hands. One of the most effective and widely used ingredients for that purpose is lanolin. There is some objection to lanolin on the ground that it leaves the hands sticky. One expert suggests that the benefits of lanolin without its disadvantage can be secured by using chloresterin, a related substance, instead.

Some lotions even today are mere variations of the old rose water, glycerin, tragacanth formula. Quince seed, tragacanth, karaya gum, or a mixture may be used to give the desired effect, which has been described as depositing a film on the skin of the hands like a pair of invisible gloves. Alcohol speeds the drying time of the film. Usually some preservative such as salicylic acid is added to keep the gum from spoiling. Salicylic acid, however, is a known irritant and there are some who will find its use in a hand lotion unpleasant. Occasionally soap is added to give a pearly sheen to the lotion, but, as one trade expert pointed out, this is not desirable, as few people would consider washing their hands in soapy water without washing it off afterwards.

Just how much glycerin should be included in a hand lotion formula has been a subject of endless debate. Lotions with too high a percentage of glycerin may be found drying by some, particularly those with dry skins, because glycerin is hygroscopic and tends to draw out moisture from the skin to which it is applied. Dr. A. Richard Bliss, Jr., writing in The Drug and Cosmetic Industry, the outstanding trade journal in the field, suggested that when the skin was unbroken and not very sensitive, 5 percent or less might be added to lotions to prevent complete drying of the hands, and to exert an emollient action. Dr. Fred Winter, listed as a leading European authority by the trade magazine, did a study for The American Perfumer in which he reported that many people had a pronounced idiosyncracy to glycerin and in such cases glycerin even in greatly diluted state might cause irritation and damage to the skin. Joseph Kalish, also writing in The Drug and Cosmetic Industry, has suggested that in hand creams a large amount of glycerin seems to have a beneficial effect on most skins by keeping them slightly moist, although

he does admit that in some cases glycerin will be irritating because of its property of abstracting moisture from skin that cannot spare it. Dr. Herman Goodman has held that glycerin up to 15 percent can be included in ordinary skin "tonics" and up to 10 percent in dry skin "tonics." The amount that can be tolerated apparently is one that will vary with the individual and probably each person will have to resolve the problem for herself. If a particular hand lotion smarts and intensifies rather than eliminates redness of the hands, it will be wise to shift to a brand which has a lower glycerin content or none at all.

The advertising claims for the effect of various hand lotions are probably among the world's silliest. Their function at best is to keep the skin soft and flexible to help avoid cracking, which is painful and sometimes leads to infection through entrance of bacteria. The Federal Trade Commission has taken action to stop misleading claims for a number of hand lotions including *Jergens, Frostilla,* and *Chamberlain's.* The Andrew Jergens Company agreed to stop making among other claims the following:

> That Jergens Lotion puts back the type of moisture natural to the hands; will keep the hands from getting rough or old-looking; contains two "famous" ingredients that doctors use; will keep the hands "youthfully" soft, smooth or white; gives the skin cells the moisture they need to stay young and firm, or that it will make them young and firm; "banishes" chapping, roughness, redness, or any condition.

It should be noted that the company signed a stipulation agreeing to cease and desist from making these and a number of other specified claims. By agreeing to stop making such advertising claims, the Jergens Company, it would appear, has pretty well cramped the style and free flow of imagination of writers of radio and magazine advertising copy for most of the hand lotions on the market.

You pay your money and take your choice; 16 oz. for $1 vs. 4 oz. for $1.50.

CR has from time to time had analyses made of well-known hand lotions. It has taken the position that the function of relieving chapped hands is most successfully performed by a cream or lotion containing a fatty emollient. Outstanding for such purpose is toilet lanolin, a heavy lanolin cream usually available at most drugstores. Lotions which do not contain such an ingredient may, however, afford temporary relief from excessive dryness, particularly when it is not convenient to apply a fatty cream or lotion. Applying a lanolin-containing cream or lotion on the hands at night, then putting on a pair of clean cotton gloves and leaving them on until morning has been found to be quite efficacious in correcting roughness of the skin.

The following ratings are based on approximate determinations of chemical composition by a qualified analyst. The prices listed do not include the Federal Excise tax on cosmetics.

A. Recommended

Toilet lanolin. Equal parts of hydrous wool fat and yellow soft paraffin, suitably perfumed.

B. Intermediate

Cheramy Creamy Skin Balm (Cheramy Inc., 539 W. 45 St., New York 19) 16 oz., $1. The sample tested was judged to be essentially an aqueous emulsion of fatty substances such as spermaceti and glycol stearate, mineral oil, and perfume. After application, an oily residue was left on the hands which some might consider objectionable or which would make the lotion unsuitable for use except before retiring. 1

Consumers' Special Hand Lotion (The Special Formula Corp., 683 Fifth Ave., New York 22) 1 pt. (16 oz.), 50c. Ingredients declared on label: triethanolamine and propylene glycol stearates, petrolatum, preservative, perfume, certified color, and water. The sample tested was judged to be essentially an aqueous emulsion of mineral oil and glycol stearate, with perfume and color. After application, an oily residue was left on the hands which might be considered objectionable by some. **1**

Dorothy Gray Blustery Weather Lotion (Dorothy Gray, Ltd., 683 Fifth Ave., New York 22) 12 fl. oz., $1. The sample tested was judged to be essentially an emulsion of stearic acid and gum acacia in water and alcohol, with perfume and color. The lotion went on smoothly, and left no greasy residue. **1**

Pond's Cream Lotion Danya (Pond's Extract Co. & Associates, Clinton, N.Y.) 6¾ fl. oz., 45c. The sample tested was judged to be essentially an aqueous emulsion of a fat, such as spermaceti emulsified with triethanolamine, water, alcohol, and perfume. **1**

Hinds Honey and Almond Fragrance Cream (Lehn & Fink Products Corp., Bloomfield, N.J.) 2¼ fl. oz., 25c. The sample tested was judged to be essentially an aqueous emulsion of a stearate such as triethanolamine stearate, with alcohol, lanolin, cetyl alcohol, a small amount of glycerin, honey, and perfume. **2**

Luzier's Hand Balm (Luzier's, Inc., 3210–20 Gillham Plaza, Kansas City, Mo.) 6 fl. oz., 75c. The sample tested was judged to be essentially an aqueous emulsion of a stearate like Tego stearate, with glycerin, perfume, and coloring matter. The lotion went on smoothly. **2**

Yardley Hand Cream (Yardley & Co., Ltd., 620 Fifth Ave., New York 22) 4½ oz., 65c. The sample tested was judged to be essentially a heavy, aqueous emulsion of a stearate such as Tego or Diglycol stearates, with glycerin, perfume, and coloring matter. It went on smoothly without leaving a greasy film. **2**

Body Smooth (Helena Rubinstein, Inc., 715 Fifth Ave., New York 22) 4 fl. oz., $1.50. The sample tested was judged to be essentially an aqueous emulsion of a stearate such as Tego or Diglycol stearates, with mineral oil, coloring matter, and perfume. The lotion went on smoothly. **3**

* * *

The following brands were considered to be somewhat less desirable than brands immediately preceding the asterisks.

Jergens Lotion (The Andrew Jergens Co., Cincinnati) 13½ fl. oz., 89c. The sample tested was judged to be an aqueous emulsion of a soft fat with additions of borax, salicylic acid (see text), glycerin, a little alcohol, and perfume. The emulsifying agent appeared to be glycol stearate. **1**

Campagna Balm (Campagna Corp., Batavia, Ill.) 4 fl. oz., 49c. Ingredients declared on the label: alcohol 1 percent, tragacanth, glycerin. The sample tested was judged to be an 18% solution of glycerin and gum tragacanth in water, with perfume added. No fatty substance of any kind was found. **2**

Chamberlain's Lotion for Hands and Skin (Chamberlain Laboratories, Inc., Des Moines) 4 fl. oz., 50c. Approximate composition of the sample tested was judged to be: glycerin (25%), water, ethyl alcohol. No fatty substance was found. **2**

C. Not Recommended

Fragrant Frostilla Lotion (The Frostilla Co., Inc., Elmira, N.Y.) 3½ fl. oz., 49c. The sample tested was judged to be essentially a 2.2% solution of gum tragacanth and boracic acid in water with a small amount of ethyl alcohol and added perfume. No skin softening materials present. **2**

Table-Model Radios

NINE of the small table-model radio sets, which are now about the only kind that are found in the consumer market, have been tested by Consumers' Research, and the reports on them are being made available in order that those who have need for a small set at this time may be in a position to buy with at least some assurance of obtaining fair quality. It should be kept in mind, however, that these first small sets, while not unsatisfactory for receivers of their class, are very poor sets in the sense that they do not afford the good fidelity and other properties which can be had in a large console set and which were present in some such console sets in pre-war times. They do not represent improved designs, as compared with pre-war sets in the same general class and price level. Therefore if the purchase of a radio receiver is not absolutely necessary at this time, and especially if it is not necessary to buy a small table-model unit, it would be well to

WE rushed the reports on these radio receivers in some cases before the sets were actually available on the general market. Because of the special difficulties at the present time in obtaining both radio receivers and special test equipment, the data are not equally complete and detailed for every set. They are, however, considered amply serviceable for those consumers who feel that they must buy a small table-model receiver right away.

postpone buying until there is a good supply of larger sized console models.

This advice is easy to follow because there are very few sets on the market anyway, and some which one might be tempted to buy will eliminate themselves because their performance is very poor or they are made by "loft" manufacturers, many of whom are in the here-today-and-gone-tomorrow class. Since there are many sets of unknown and unstable makes on the present market, the consumer needs to be specially on guard against the purchase of these; it seems wise to advise that radio sets made by an unknown manufacturer should not be bought unless they are of brands upon which Consumers' Research has furnished favorable information; there are many sets now being offered in big cities which are a very poor grade and made by nobody knows who—firms which may be in and out of business on very short notice. Such sets may present a very difficult servicing problem, not because radio parts are difficult to obtain (though they are especially scarce at this time—worse than at any time during the war) but because their construction will be such that they do not lend themselves well to servicing operations. Some small sets, indeed, have been so poorly made that servicemen have taken the position that their customer had better give up the set and buy another one rather than attempt to have it repaired.

All of the following sets were ac-dc, and all used the superheterodyne circuit; each set had built-in loop and provision for connecting on an external antenna, sometimes by a binding post and sometimes by twisting on to a length of wire available for the purpose.

B. Intermediate

Emerson, Model 507 (Emerson Radio and Phonograph Corp., New York City) $20. Plastic case. Five tubes. Parts good; workmanship fair. As to shock hazard, satisfactory. Sensitivity good. Selectivity fair. Audio output very good. May be best of the sets in the group, in the low-priced class. **1**

Sonora, Model RBU176 (Sonora, Chicago) $22.20. Plastic cabinet. Five tubes. Quality of parts and workmanship average. No Underwriters' label. Accessibility for servicing very good. Sensitivity average for this class of radio. Selectivity good. "Spurious responses," none (exceptional for this type of receiver). Electrical fidelity good. Acoustical quality better than average. Audio power output at 10% distortion, 0.6 watts (fair); at high distortion, 1.2 watts (fair). As to shock hazard, satisfactory (leakage current 2.5 milliamperes, chassis to ground). The output tube vibrated badly, due to resonance, over a certain frequency range, which might reduce tube life. **1**

Motorola, Model 65X12A (Galvin Mfg. Corp., Chicago) List price, $27.30 Zone 1; $28.70 Zone 2. White plastic case. Six tubes. Workmanship good and parts average. Probable ease of servicing, good. Several "spurious responses." Electrical fidelity unusually good for a small receiver, and tone quality on listening test excellent when operated at moderate output. As to shock hazard, satisfactory. Power output at 10% distortion, 0.5 watt (low); at high distortion, 1.25 watt (fair). **2**

Teletone, Model 100 (Teletone Radio Co., New York City) $27.55. Wood cabinet; cardboard back-cover. Five tubes. Parts and workmanship good. Ease of servicing, exceptionally good for sets in this price class. Sensitivity good to fair; selectivity normal. "Spurious response" present at 910 kc. Electrical fidelity rather good for this type of set. Acoustic qualities, as judged by listening test, would perhaps be rated as good, though sounds a bit flat. Output at 10% distortion, 0.72 watts (fairly good); maximum output with high distortion, 1.4 watts (normal). **2**

Crosley, Model 56 TC (Crosley Corp., Cincinnati) $29.95. Wood cabinet; cardboard back-cover. Broadcast and short-wave bands (latter not very effective). Five tubes. Easily serviced. Sensitivity poor to fair; still not fully satisfactory after realignment. Selectivity normal. Audio output at 10% distortion, 0.52 watts (low); at high distortion, 1.15 watts (fair). "Spurious response" present at 910 kc. Audio response, measured electrically, not good, but judged on listening test, which includes loudspeaker action, considered very good; with many listeners, this might rate as the best-toned set tested in its price class. **3**

Emerson, Model 505 (Emerson Radio and Phonograph Corp.) $40. Combination "three way portable" running on a-c, d-c, or batteries (batteries extra) (two 4½-volt "A" batteries; two 45-volt "B" batteries). Wood cabinet; leatherette fabric covered. Three-gang variable condenser, with one-stage radio frequency amplification (desirable). Six tubes. Parts and workmanship good. Sensitivity good; selectivity fair. Audio power output 0.4 watts on the battery (satisfactory) and a little less than 1 watt on the power-line operation (fair). Receiver had good qualities for its class in respect to sensitivity and tone. **3**

Stromberg-Carlson, The Newscaster, Model 1100-H or 1100-HB (Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.) $29.95. (This is said to be Stromberg-Carlson's only present production model.) Standard superheterodyne with two-gang condenser and aperiodic r.f. stage (requiring no condenser). Two-position tone control. Six tubes. Bakelite plastic case; masonite cover at back. Automatic volume control (a.v.c.). Quality of parts above average, and workmanship exceptionally good. Sensitivity very good; selectivity fair. Audio power output (at 10% distortion), low, 0.44 watts; at high distortion, 1 watt maximum (fair) corresponding to very poor tone quality. Free from "spurious responses" (common in many of the cheaper radio sets). Electrical fidelity not fully satisfactory; tone, as judged by the ear, however, was good. Acoustic qualities consistent with size of speaker and plastic cabinet; no hollow base tone. This receiver was one of the

first of a pilot run intended for display purposes, and although present test data would warrant a *B* recommendation, an *A* rating in future, we believe, may possibly be justified, in view of the fact that later standard production models should be expected to have better alignment and probably better performance. 3

C. Not Recommended

Admiral, Model 6T01-6A1 (Admiral Corp., 3800 Cortland St., Chicago 47) List price, $27.95. Six tubes. Parts and workmanship good. As to shock hazard, unusually satisfactory for a set of this type. Tone quality poor (not so good as that of a $10.95 *Sears* pre-war table model). This listing is carried over from the March 1946 *Bulletin*. 2

Minerva, Model W 119 (Minerva Corp. of America, N.Y.C.) $28.95, plus Federal Excise tax of 10% or $2.89—$31.84. Wood cabinet. Six tubes; the extra resistance-coupled r.f. tube gave little advantage over the five-tube sets. Parts and workmanship good, but there were some rattles. Dial calibration poor. Had several bad "spurious responses." Relative sensitivity fair to poor. Selectivity fair. Output at 10% distortion, below 0.6 watts, fair. 3

1946 CARS

Chrysler Cars

Chrysler

Chrysler Coupe

LIMITED information based largely upon examination of a few cars in dealers' showrooms would indicate that aside from a major change in the semi-automatic transmission, the most important change in 1946 *Chryslers* is along expected lines of restyling the forward end and sides. The so-called "massive appearance" is obtained by wide grille bars and wide bumpers of the "wrap around" type. The front fenders instead of stopping at the doors are faired back into the sides of the doors, providing a smooth unbroken surface at the juncture. This effect is somewhat marred on several cars examined by what appears to be an error in die design with the result that the front fender and fender apron do not line up properly where their edges meet, thus breaking an otherwise smooth fender edgeline. Also there were numerous evidences of patching in the body finish and of points where the finish had been chipped or improperly applied.

Two interesting though minor improvements are a handbrake warning signal, which flashes if both the ignition switch and hand brake are "On," and an interlock between the horn disc and ignition switch, which prevents blowing of the horn unless the ignition switch is in the "On" position. The former will help those who sometimes forget to release the parking brake when starting their car. There is a remote hazard in the second device, in that it may in certain cases be necessary to use the horn when the engine is not running, e.g., when a car is coasted from a sloping driveway to start the engine, and thus the car may be in motion before the ignition switch is turned on. The horns of the new *Chryslers* have been mounted in front of the radia-

tor, which makes them more effective, and gives a more accessible position for servicing the horn relay switch.

Engine changes include a return to aluminum pistons with plated piston rings, and a redesign of the intake manifold to obtain more flexible low-speed engine operation and higher low-speed torque. In the fuel system, the use of a new gasoline filter in the fuel tank (originally designed for Army vehicles) eliminates the need for filters in either the carburetor or fuel pump sediment bowl. The maker claims that the filter will require no attention for the life of the car. The throttle linkage has been simplified by the use of fewer parts and provides an easier accelerator pedal action. The oil filter is of the "full-flow" type passing all the oil entering the engine rather than a portion of it, as is customary. (It is assumed that an oil bypass valve is provided in the filter line so that oil will continue to flow to the engine in the event the filtering element becomes completely clogged.) The forward face of the "fire dash" or wall between engine compartment and body space has been "cleaned up" by installing the ignition coil on the engine and placing other units near to the engine under the hood. Possibly the relocation of the ignition coil or the new spark plugs reflect recognition of a frequently reported service trouble with 1942 *Chrysler* cars due to "waterlogging" of the ignition system in rainy weather. Spark plugs having heavier electrodes, with insulator and shell of new design, are used. The new plugs are said to provide a wider heat-range of operation.

All Chrysler cars (*Plymouth*, *Dodge*, *De Soto*, and *Chrysler*) have an improved braking system giving a higher braking efficiency with lower pedal pressure than hitherto. This improvement, while used on 8-cylinder *Chrysler* cars previously, has now been adopted for all cars in the Chrysler line. Separate hydraulic cylinders are used for each of the front-wheel brake shoes. This permits all shoes in the front wheels to provide a wrapping or self-energizing effect. Thus six of the eight shoes in the car have this action, which increases braking effectiveness with less pedal pressure when the car is moving forward. (However, the braking action for motion in a reverse direction suffers from this change. There is no effect on parking brake action, since rear wheel braking is not affected.) The reduction in pedal pressure is said to be as much as 25 to 30 percent, with the same braking effectiveness as formerly. All six brake cylinders are now of the same size, so that they are interchangeable, thus reducing service stocks required for maintenance.

The semi-automatic transmission appears to have been largely redesigned, as it is now hydraulically operated (instead of vacuum-operated) with the control mechanism built into the transmission case. Through an increase in the gear ratios, more uniform acceleration is said to be obtained. Two driving ranges are provided, with an unlocking feature which permits pushing the car when necessary to start it in this manner because of a run-down battery or other cause. The gears also are larger, which will reduce tooth loads and should increase gear life in service.

Some *Chrysler* models of 1942 were equipped with 16-inch wheels, but all models for 1946 have wheels of 15-inch size, with 4.5-inch rim width on 6-cylinder cars and 5-inch on 8-cylinder. Tire sizes are 15-6.50 and 15-7.00, respectively. The safety rim feature also is continued on all cars. While production is now apparently limited to the Club Coupe and 4-Door Sedan types, a total of 26 body styles and 13 standard colors will, according to company statements, be available later. Six- and eight-cylinder types are continued.

De Soto

Along with style changes, the *De Soto* for 1946 features substantially the same mechanical changes as have been noted for *Chrysler* cars. While claimed to be "longer and lower" than the 1942 model, the wheelbase is the same as before (121.5 inches). The improved hydraulically actuated semi-automatic transmission, the improved brakes, aluminum alloy pistons, new intake manifold, new fuel filter, heavy-duty type spark plugs, new ignition coil location, and 15-inch wheels of safety rim type are to be found in the *De Soto* as well as the *Chrysler* cars. There have also been desirable changes in gear transmission ratios.

In the restyling of the car, the rear fenders, which now omit the wheel shields, are brought down somewhat to cover more of the top of the tire. The new grille is a chromium-plated die casting with vertical bars, different in arrangement than in *Chrysler* cars, which have horizontal bars. The tail-lamps are so designed that they illuminate the luggage compartment from the inside, and also may easily be serviced from this compartment, without need for remov-

De Soto Custom 4-Door Sedan

ing the lenses. Bumpers are of wrap-around type (which incidentally are not used on *Plymouth* cars examined to date).

For the restyled interiors, the instrument panel is in Flemish gray with straight grain burl finish. Upholstery materials include pile fabrics and broadcloth with door scuffs trimmed in leather. Knobs are of crystal plastic with decorative trim in chromium finish.

Ten body types are to be included in the complete line. Also ten colors and four two-tone combinations are available.

★

The Bobbi-Kar

PRODUCTION plans are understood to be under way for still another new small automobile for the 1946 market. The *Bobbi-Kar* made by the Bobbi-Motor Car Co., a West Coast firm, was recently illustrated in current technical publications. The car is to be sold at a price between $500 and $600, according to announcements.

Details disclosed to date indicate that the car is not very different in size and proportions from the *Crosley*. The wheelbase is given as 80 inches (same as *Crosley*) with a tread of 42 inches (2 inches wider than *Crosley*). Overall length is 132 inches or 13 inches shorter than *Crosley*. Seat width is 43 inches and the tire size is 4.50-12 inches. The car is said to weigh approximately 1000 pounds, to be capable of operating with a fuel economy of 40 miles per gallon, and to give a top speed of 60 to 65 miles per hour.

The first body type to be produced, a convertible coupe, is novel in that the top is of steel of one-piece construction held in place by latches at the top of the windshield and around the rear deck line. The top can thus be easily removed. Storage space for it is provided in the package compartment, which in this car is located in front of the driver in the space the engine occupies in the conventional automobile. Sizable space is available for stowing packages, which might make this car suitable for local parcel delivery and similar applications.

The car is of rear-mounted-engine type, an engine location long favored by many automotive engineers, and a far more desirable innovation than the front-drive adopted for the *Kaiser* car, for definitely greater engineering advantages are obtained by this location for the engine than can possibly exist for the front-drive type. The engine is a 25-horsepower Hercules, a make of engine well known in the heavy-duty engine field and produced by a long established company. It is claimed that the entire driving assembly can be removed in 10 minutes for replacement or repairs. An 8-inch dry plate clutch is used.

Additional specifications include hydraulic brakes, a synchronized gear type of transmission, full-floating rear axle, and an X-type frame of tubular steel. Independent suspension is used for all four wheels.

While the convertible coupe will be produced first, plans call for a 2-door sedan, a package car and a station wagon to be produced later. Our information states that two plants at Chula Vista and National City, California, formerly devoted to airplane production, will be taken over for producing the car, and that eventually, manufacture of 5000 cars a month is planned.[1]

[1]This car is open to the same objections that pertain to the *Crosley*, including those relative to subsequent marketability by the purchaser desiring to sell, as well as seriously diminished driving safety by reason of the unusually small size in relation to other cars on the road, and to trucks. This means that often the abnormally small car will not be seen by the driver of another car or truck until it is too late for the latter to take an action to avoid a head-on or side-on collision.

Paint, Varnish, and Shellac Removers

ALL householders who do any repairs or refinishing in the home will have occasion at one time or another to use a paint and varnish remover; a question naturally arises as to which of the several available types is best suited for the purpose. Unfortunately all types have their disadvantages, but if proper care is exercised in use of the material, either one of the two common kinds removes paint, varnish, etc., effectively.

Alkaline paint and varnish removers sold in powder form to be mixed in water (usually hot) are cheapest, and are in wide sale to ultimate consumers in hardware, paint, and other stores. They consist of caustic soda (lye), soda ash, washing soda, or trisodium phosphate; they are very satisfactory for use on ferrous metals, e.g., iron and steel, but must never be used for removing coatings from non-ferrous metals, e.g., brass, aluminum, zinc, etc., as such metals and alloys are subject to rapid corrosion by strong alkalis. The alkaline cleaners are not suitable for use on wood furniture or floors, since in the concentration in which they must be used to be effective, their action is too severe and tends to raise the grain of the wood. Glued joints, when not made with water-resistant glues, may have their adhesion destroyed by the water which is present in alkaline removers. A further important practical disadvantage is that complete removal or neutralization of the alkali is necessary; if this is not done, the material will continue to seep through and adversely affect or even ruin whatever finish is subsequently applied.

For some types of woodwork, the alkaline cleaners are good enough, but when use of the material is completed, the wood should be washed with vinegar or with dilute acetic acid (Tech. Grade, 28% to 56%), 1 pint per pail of water, and thoroughly rinsed with clear water, so that the wood is left neither acid nor alkaline. When the alkali used as a paint or varnish remover is lye, skillful handling is necessary to prevent the wood surface from being "burned."

When an alkaline paint or varnish remover is used, stains which remain can be bleached out by the application of a saturated solution of oxalic acid (1 teaspoon to a cup of hot water). This is very poisonous and must be handled with care. The excess oxalic acid must be removed by washing well with "modified soda" (sodium sesquicarbonate) and soapy water.

Caustic soda or household lye solutions have the disadvantage of darkening most woods, and should never be used on oak. Alkaline solutions of the required strength must be handled with care and not permitted to come into contact with the skin, or even the smallest droplet permitted to gain access to the eye by splashing or by contact with fingers or gloves. Rubber gloves are necessary for safe handling of the alkaline solutions, as they are all destructive to the skin.

"Solvent Type" removers made of flammable and toxic substances lack some of the disadvantages of the alkaline removers, but have difficulties and dangers of their own. They are available in two forms, one a thin liquid for use on horizontal surfaces and the other, a semi-paste for overhead and vertical surfaces. Such removers consist of or are variations of a formula corresponding to the following: 3 parts of paraffin wax dissolved in 50 parts of benzol, 25 parts of denatured alcohol, and 25 parts of acetone. The wax serves the very important purpose of retarding the evaporation of the solvents in the remover by forming a film over the surface exposed to the air. This wax film must be carefully and completely removed before the new finish is applied; otherwise the finish may remain soft and tacky or peel off entirely. The waxy residue can be removed by washing clean with denatured alcohol of the type used for thinning shellac.

Warning—Great Care Needed in Use

This type of remover, because of the highly flammable and toxic materials it contains, should be used only where there is good ventilation—particularly at the floor level—and where there is no open flame or very hot surface (e.g., an electric stove burner or a very hot stove).

It is important to avoid by all means the breathing of the fumes or vapors, which are exceedingly injurious to health and may cause serious poisoning or collapse; also the vapors of the denatured alcohol must be inhaled with caution, and no alcohol should be used for the cleaning operation which has been denatured with methyl (wood) alcohol.

"Solvent Type" Paint and Varnish Removers (non-flammable) are an improvement over the flammable type as their use eliminates the fire hazard. However, the hazard of poisoning still remains and proper ventilation when using a remover of this type is essential. A typical composition is chiefly methylene chloride blended with trichlorethylene and ethylene dichloride with small amounts of paraffin wax, alcohol, ethyl cellulose or cellulose acetate. The problem of the removal of the wax residue exists with this type of cleaner as with the flammable solvent type, and denatured alcohol can be used for cleaning the surface before repainting or revarnishing.

"Wax-Free Solvent" Removers are available in both the flammable and non-flammable types. In these, cellulose acetate, or ethyl cellulose is used instead of paraffin wax to retard the evaporation of the organic solvents. With these removers there is no waxy residue to be eliminated and the work merely requires to be wiped dry.

Shellac Removers. The only satisfactory chemical means of removing shellac and other spirit varnishes is by the use of denatured alcohol. The denatured alcohol is applied liberally to small areas of the work and allowed to stand. When softened by this treatment, the shellac can be removed with a scraper or with steel wool. For vertical surfaces, powdered whiting can be mixed with alcohol to form a paste. The paste should be spread over the surface about ¼ inch thick, and removed with a putty knife when the shellac has softened sufficiently.

How to Use Paint or Varnish Remover

Whenever possible the surface from which paint or varnish is to be removed should be placed horizontally, varnished side up, so that remover can be spread over it. When necessary, remover can be used on vertical or "hanging" surfaces, but the work is easier on horizontal ones, such as table tops and floors. The remover should be brushed or mopped on the surface generously and allowed to stand until the coating has softened throughout its thickness. Give the remover time to act thoroughly. Meantime keep the surface wet by applying more remover as often as necessary. (Thick coatings of paint or varnish may need several applications.) Spread paper or cloths lightly over the surface to retard evaporation of the liquids (when they are of the volatile-solvent type) while the paint or varnish remover is acting.

Do not begin to scrape off the softened coating until it comes off completely, all the way down to the underlying wood or metal. Time spent in the film-softening part of the operation will be more than regained later on and will produce a much better job. When a test shows that all of the coating is soft start scraping it off with a wide putty knife or other dull-edged tool. Take long, firm strokes, with each stroke removing the whole thickness of coating and leaving behind a practically clean, dry surface. At the end of each stroke wipe the blade clean with newspaper or rags. Proceed with the scraping as rapidly as possible. Carvings or other recessed surfaces that cannot be reached with a tool may be cleaned with a stiff bristle brush (or a wire brush that is not too stiff). Wooden toothpicks often prove useful tools at edges of moldings and in corners. Put the scrapings in tightly closed metal waste cans or dispose of them in some other safe way at once because they take fire easily and will burn fiercely.

Immediately after scraping, wash the surface with the cleaning liquid suggested in the discussion of the type of remover that was used. If the coating was thoroughly softened before scraping was started and if the blade of the scraper was kept clean, there should be little contamination of the surface with wax, alkali, or other ingredient of the remover and it should be easy to wash the surface clean (with the proper liquid, as already mentioned). On the other hand, if the surface was badly contaminated with remover, the washing must be done thoroughly to avoid danger of interference of residues of the remover with the drying or adhesion of the new coating.

After washing, let the surface dry thoroughly. Wood surfaces should then be sandpapered lightly with fine sandpaper before refinishing. If the remover was of the kind that consists of an alkali dissolved in water, it may be necessary to sandpaper thoroughly to restore a smooth surface.

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A brief statement of the analysis of a few typical paint and varnish removers of commercially-marketed brands follows:

Alkaline Type Cleaners

Double X Floor Cleaner (Schalk Chemical Co., Los Angeles) Analysis showed this to be essentially trisodium phosphate.

K. B. Kleen & Bleech (Kleen Chemical Co., Philadelphia) According to an analysis of some years ago, consisted of about 42% trisodium phosphate, 28% borax, 8% sodium perborate, and 22% soda ash.

Painters' Savogran (The Savogran Co., Boston) According to an old analysis, consisted of about 92% soda ash (washing soda) and 8% sodium oleate soap. For removing paint, directions called for one-half cup to be dissolved in 1 qt. of boiling water.

Volatile Solvent Cleaners

I C D Formulae 9 (Industrial Chemical Development Corp., 331 Madison Ave., New York 17) A non-flammable remover consisting of about 88% chlorohydrocarbons (volatile substances similar to carbon tetrachloride), 8½% ethyl acetate, and 3½% ethyl cellulose.

Lako Kwik-Off (Abeles Lewitt Co., Inc., N. Y. C.) According to an analysis of some years ago, consisted of about 56% benzene (benzol), 21% acetone, 20% nitric acid (14% solution), and 3% paraffin wax.

Lingerwett (Wilson Imperial Co., Newark, N.J.) Was found on analysis to consist of about 51% benzol (benzene), 28% grain alcohol, 8% ethyl acetate, 9% petroleum naphtha, and 4% petroleum wax.

Miracle No. 25 (Miracle Chemical Products, Inc., Cleveland) According to an old analysis, consisted of 40% methyl acetone, 40% toluene, and 20% benzene, by volume, in which about 3% paraffin wax had been dissolved.

Pyrox (Pyrox Chemical Co., Inc., Ridgefield, N. J.) A non-flammable remover consisting mainly of chlorohydrocarbons (substances related to carbon tetrachloride) with very small amounts of ethyl cellulose and paraffin wax.

Rel (Reliable Paint & Varnish Co., Garden City, N. Y.) A non-flammable remover composed of about 97% chlorohydrocarbons, 2% ethyl cellulose, and 1% paraffin wax.

Saf-Te Remover (Wilson-Imperial Co., Newark, N. J.) Had essentially the same composition as *Pyrox*.

Wonder Paste (Wilson-Imperial Co.) Was found on analysis to consist of 40% benzol, 22% ethyl alcohol, 17% ethyl acetate, 9% petroleum naphtha, 7% unsaturated hydrocarbons (a class which includes such volatile liquids as xylol, toluene, and turpentine), 4% petroleum wax, and 1% ethyl cellulose.

Motor Oil Dope—*Casite*

THIS is a rather long story about a product which some readers may consider perhaps of no great importance. However, the automobile specialty discussed is one of a common type and the claims made for it are typical of many other automotive specialties that are in wide sale, in their vagueness and lack of specific content. Manufacturers and promoters of products in this general class do a thriving business, chiefly because of their ingenuity at devising plausible claims, and motorists' lack of information regarding the composition and probable performance of the material. On this account, many motorists will find that the story about *Casite* and its claims will help them come to conclusions not only about *Casite*, but about other products offered under similar claims, and to judge whether the products are meritorious and significantly useful or are chiefly expensive ways of buying some inexpensive, often familiar, material.

ANY product which under a "double your money back" guarantee claims to restore motor performance by cleaning out sludge and gum and keeping them out, to free sticking valves and rings, retard formation of "engine varnish" and speed lubrication to high friction points, particularly when such a product is widely and cleverly advertised, will have strong sales appeal. In these times when people's cars are in far from the best mechanical condition (and are likely destined to remain so for many months to come), more than the normal proportion of automobile drivers will take an interest in these promises of fine performance for a car which has long since lost its smoothness and "pep." *Casite* is sold under these advertising claims and its promoters no doubt prosper greatly as a result. It is distributed by the Casite Corp., Hastings, Mich., and sells at retail at 65c per pint. Many garages are now recommending this product as the cure for sundry engine ailments, and according to report, there are certain cases where its use has temporarily helped in the correction of at least minor troubles. On the other hand, from the evidence in hand, there is little reason to doubt that a petroleum oil product no more mysterious or expensive than kerosene[1] might have performed the job equally well in those cases where *Casite* seemed to users to be of some service.

CR's Tests

CR purchased a sample of *Casite* for analysis. The chemist found it to be a very common

[1]The addition of 10% kerosene to the crankcase oil for winter temperatures below 10°F is considered good winter automobile operating practice and is recommended by the Society of Automotive Engineers; this well-known method of thinning oil to help with winter starting has been recommended in CR's BULLETINS for some years.

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and cheap material known as gashouse drip, a by-product of the illuminating-gas industry, worth perhaps a cent a gallon when purchased in commercial quantities. Thus in selling this material at $5.20 per gallon (on the basis of the price of the pint can), the manufacturer would appear to be making a phenomenal profit, even when several cents are allowed for the price of the container. Comparison of the analysis recently made with one made in 1939 indicates a change in the product's composition (without any corresponding change in name). (This is a common occurence with all sorts of chemical specialties for automobile, household, and factory use.) In the earlier analysis, *Casite* was a mixture of about 60% gashouse drip and 40% of a petroleum fraction similar to kerosene or a light mineral oil.

One of the claims for *Casite* is that it "is invaluable for easy starting in cold weather." *Casite* would help to make a car start easier, for adding one pint of this very thin liquid, which is about like kerosene oil in consistency, would obviously lower the viscosity of the oil in the crankcase, and that is a very obvious and usual way to make starting easier in very cold winter weather; on the other hand, it is necessary in practice that oil should have the *right* viscosity, for too low a viscosity can do harm in the lubrication of a car, especially one which is considerably worn. The right way to get easy starting under winter conditions is to use a regular lubricating oil of the proper low viscosity, which gives a low "cold test," or to add to the right oil the proper amount of a wax-free diluent oil, such as kerosene. In order to test the claim of easy starting in cold weather, samples of SAE 20 and SAE 30 oils were purchased and viscosity and viscosity index determinations were made on the samples as received, samples with 10% *Casite* added and samples with 10% kerosene added.

It was found that the effect on the viscosity of the samples was about the same with additions of *Casite* as with additions of kerosene. Both reduced the viscosity one SAE grade. SAE 20 oil was reduced in viscosity to SAE 10 and the SAE 30 to SAE 20.

As to viscosity index (a property which CR has frequently pointed out as one of the most important characteristics of motor oil), kerosene had some effect on that property, but the change following the addition of kerosene was slight. *Casite* made no claim respecting viscosity index, but it did improve (increase) the viscosity index more than the kerosene; however, the effect was small, and not considered significant. The right way to obtain a high viscosity index (which is a desirable property) is, of course, to buy one of the *A-Recommended* oils which CR has tested and found satisfactory in that respect; in that way the motorist gets the right viscosity index without paying extra for it at the very high rate charged the purchaser of *Casite.*

Examination of Manufacturer's Claims

"*Casite* guarantees summer starting in winter weather or double your money back. We guarantee that any motor capable of being started in a warm

room will start in the coldest weather when *Casite* is added to the crankcase." Such a guarantee is perfectly safe, for as CR's tests have shown, if enough *Casite* is added, the viscosity will be greatly reduced and starting made easier. As we have noted, adding kerosene (at 1/35th the cost per addition) will do this too—albeit without increasing the sales of *Casite.*

Manufacturers are always a little more careful about what they put on a label than about what their ad-men say in magazine advertising. One reason is that the label is usually prepared by the manufacturer with one eye on the possible legal hazards arising from misrepresentations and false claims, whereas this hazard may be slight or negligible in the case of advertising (because of the ephemeral nature of much advertising and the fact that misrepresentations made in it can be changed rapidly and often worded in ambiguous ways or "double-talk," to confuse governmental and other investigators). Wholly false claims on labels are risky for another reason, as the manufacturer is liable to suit by his customers who have tried the product and may assert in court (perhaps asking for several hundred dollars damages) that on the following day the motor completely failed to function. With this in mind, the manufacturer often introduces caution statements on the label, depending upon the advertising to sell the product, and depending further on the fact that the average purchaser will not read all, if any, of the fine print on the label.

Let us see just what *Casite* does claim on its labels. "*Casite* cleans out motors, keeps motors clean. Everyone knows a clean motor runs better and lasts longer." In Federal Trade Commission terms, one might call this "advertising puffery." If the *Casite* cleans out the engine, one may ask first what it cleans out and second where what it cleans out goes to. Reading the phrase, one would think that it dissolves all the sludge and "goo" and accumulated material that gets into the bottom of the crankcase, that it removes carbon from the engine, and that in short it is a universal solvent for everything about the engine except the metals, spark plug porcelains, and the like. Only by putting all these foreign materials into solution in the crankcase oil, and at the same time making them effective as motor lubricants, could *Casite* make good on its claim for cleaning out the engine and keeping it clean. (It wouldn't do any good in other words just to have the dissolved materials circulated in the engine with the lubricant unless one knew that they were *harmless to the engine* in that "dissolved" condition.)

"Non Corrosive." This claim is of no value to the consumer. It must be assumed that anything intended by a competent manufacturer to be used in an automobile engine would be non-corrosive.

"*Casite* removes sludge and gum from the working parts of gasoline or Diesel motors. . . ." In so far as a material of this sort can reach or contact the working parts of the engine, it will dissolve some of the gum deposits. Sludge, as we use the term, would mean deposited gum, etc., in the bottom of the crankcase. The product may have some merit for this purpose as claimed, the limitation being that such deposits often occur where the lubricating oil (and its attendant solvent if one is present) do not circulate freely.

"Frees sticky valves and gummy rings." This is a debatable point on which CR and many automotive engineers do not know the answer. Some contend that there is sufficient circulation of oil to and at the valves actually to remove gum deposits. Others hold that if any substantial amount of oil or additive gets to the valves, it will get through them into the combustion chamber and be incompletely burned and thus not only destroy lubricating oil but produce further deposits, rather than remove them.

". . .assures proper break-in of new or reconditioned motors." CR has never been able to see any logic in recommendations for adding some special material as a break-in oil.[3] It may be doubted whether *Casite* would serve any good purpose in this use (other than that resulting from faster oil circulation which it causes by its lowering of the viscosity of the crankcase oil—as kerosene does). (But note that the required lower viscosity, as has been pointed out, is best obtained by the selection of a crankcase oil of the proper viscosity in the first place.) On the other hand, it may do no harm, but as to that "advantage" there are scores of materials that might be added to lubricating oils of which this might be equally said, and a good many of them would not cost $5 a gallon.

". . .enemy of engine varnish." The varnish term means a very hard amber-colored deposit which seems to be chemically inert or nearly so. (In practice, this is removed by a sort of "sand blasting" for which wheat kernels, plastic granules, and several other mechanically equivalent materials have been used.) In other words, the varnish coating has to be *worn* off by a mechanical method which will not abrade the metal. Here the label statement is carefully made, as it does not say *Casite* will remove engine varnish. The phrase may mean that *Casite* may merely soften it a little or have some limited degree of effect upon it. Actually the effect of *Casite* and other substances containing "aromatic hydrocarbons" would be slight on engine varnish—probably little if any practical value.

For engines with 5000 miles or more, the label recommends as a tune up, removal of the air cleaner every 5000 miles, pouring one pint of *Casite* through the air intake, cleaning and replacing the air cleaner, also adding one pint of

[3]Some consider that extra protection will be afforded to a new car during the break-in period if 1 qt. of light (SAE 10W or 20W) *lubricating oil* is added to each tank of gasoline for the first 200 to 500 miles.

Casite to the crankcase each oil change. There is no question that cleaning the air cleaner will somewhat improve engine performance at medium to high throttle positions, but this would occur whether or not *Casite* was used. In this instance, *Casite* is relying upon an old method used with directions of many automobile "medicines," advising using product *A* and at the same time taking steps to make adjustments or other changes that we may call *B* and *C*. The consumer will often assume that the good results have been produced by the use of product *A* rather than application of the measures *B* and *C* that went with its use. One automobile expert considers the introduction of *Casite* through the air intake to be unwise as use of the product in this way may wash down the oil on the cylinder walls, with resulting danger of piston or ring scuffing.

"Contains no ether, fats, acid or graphite." This is such a familiar advertising technic as hardly to need comment. We can also be sure that the product does not contain dichlorobenzene, gold, silver, or platinum chloride.

"Not a lubricating oil" is a statement presumably made for the manufacturer's protection against the user who may suppose that if a little *Casite* is good, more is better, and would proceed to fill his crankcase with the product.

Conclusions

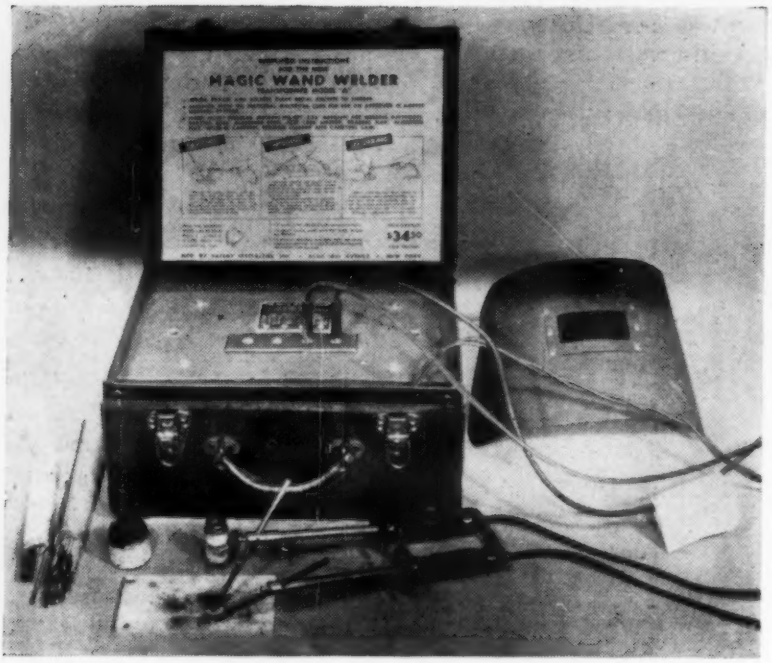
Structurally *Casite* is a "penetrating oil," and a coal tar oil similar to "gashouse drip" has been sold as a "penetrant" (used for freeing rusty nuts, etc.) under the name *Liquid Wrench* as reported in CR's BULLETIN for July 1945.

From CR's investigation it seems evident that *Casite* possesses no magical properties as an "engine oil dope" and has little if any value in connection with a gasoline engine beyond what kerosene would have, if used in the same way. It is important to remember that these comments quite probably apply equally well to any other products which act as solvents or thinners and are sold as special crankcase oils and engine conditioners. If consumers would stop and reason before buying such products as may reasonably be presumed to fall in the "patent medicine" or secret remedy class, this field of exploitation of consumers' respect for strange colors, smells, and consistencies would soon come to yield poor returns. For example, why should there be special crankcase oils or "pepper uppers" with important or unusual properties which have not already received wide recognition by automobile engineers and why do not the automobile manufacturers themselves recommend and sell such products if they are so vitally important for the automobile engine? The cautious consumer will remember that when a product for these purposes is produced which has scientific and technical merit, it will be widely and comprehensively discussed in technical journals of the automobile industry and of the related sciences. Secret products which have merit in these fields do not remain secret long, for automobile manufacturers and refiners of lubricants have excellent facilities for chemical and mechanical tests and analyses and will not linger behind chemical specialties manufacturers in arriving at useful product ideas, when the ideas have real and substantial merit.

★ Home and Farm Electric Welding Outfit ★

THE idea of being able to do small welding jobs appeals strongly to many home craftsmen. To rural people and farmers who are mechanically inclined, it is even more appealing, for being able to weld a broken piece of machinery on the spot would save valuable time which would otherwise be consumed in taking the part, perhaps a good many miles, to the next big town. Unfortunately, the home welding job is not so simple as it appears, for many of the cheaper welding sets are unsatisfactory, and would be of doubtful value even in the hands of an expert. Besides, welding is an art which cannot be picked up in a few minutes; it requires considerable training, skill, and experience, a fact which is naturally not brought out in the advertising and sales promotion of the cheap welding tools and gadgets now being offered to consumers in advertising in various popular magazines.

In this connection it is interesting to note what a leading radio and appliance trade magazine, Electrical Merchandising, has to say, "The sale and use of cheap, home made welders should be discouraged or prohibited. Such welders may at best be dangerous toys



. . . . While there are some small low priced welders of the transformer type which may be of approved construction, the limitations of these welders should be clearly stated by the manufacturer and seller with special reference to safety measures in their use. . . . No welder having an input rating of more than 12 amperes, 110 volts, should be equipped for use on 110 volt outlets or circuits. Electric welders having a primary input of more than 12 amperes should be equipped with a special 3 pole, polarized plug for connection to the 220 volt, 3 wire circuit. For ordinary farm repair purposes, welders of 150 ampere rating should be acceptable both as to performance and for use on farms served by 3 kva. (or larger) transformers." As this quotation makes clear, the problem of use of a home welder involves serious technical questions, and is not one to be lightly decided by a person without engineering knowledge of electrical circuits and house or shop wiring.

CR has already reported on the results of tests on a *Magic Electric Welder* which proved to be not so magical, was indeed a very poor performer. Tests have recently been concluded on another set now being widely sold, whose name also implies "magical" properties. This is the *Magic Wand Welder*, 110-volt transformer Model A1, manufactured and distributed by Patent Specialties Inc., 4020 Tenth Ave., New York 34, at $34.50. The *Magic Wand Welder* is a considerably more substantial and workmanlike contrivance than the previous outfit tested and reported in CR's May 1944 BULLETIN. The *Magic Wand* was accompanied by 14 pages of mimeographed instructions, which indicated that the writer, who referred to himself as a welding engineer, seemed to be aware that the majority of purchasers would not be likely to obtain satisfactory results. Would-be welders were told "You have purchased a fine repair tool! Give it a chance!" "There is nothing so discouraging as ruining your first valuable job with your new welding outfit. Avoid this by ruining some worthless stock first!" "Don't be a quitter. . . . Welding is a skill [*sic*] subject like handling a fine musical instrument."

In view of these admonitions, it was decided that it would be wise to eliminate the element of amateurishness in the use of the device by arranging for the services of a skilled and experienced welder. This man had passed the Navy expert welders' tests, had worked on welding jobs at the Navy yard, and at the present time is operating his own welding business, so that there was no question as to his ability and experience in the field.

The results of his tests were as follows:

Brazing. A pair of copper plated center cored carbon electrodes are used in the double holder for this type of work. Squeezing the holder until the tips of the electrodes made contact, then separating them until they were about 1/8th of an inch apart produced a hot bright flame which is applied to the work, brazing rod, and flux. The operator was unable to produce a satisfactory job of brazing with the equipment.

Metallic Arc Welding. For this type of work the double holder is separated and one of the carbons is replaced by a welding rod. The carbon is placed in contact with the work to ground it and complete the circuit and is left in this position. The electric arc flows between the tip of a steel welding rod and the work. Where the arc hits the surface of the work a small pool or crater of molten metal is formed; at the same time, the

other end of the arc melts small globules of metal from the welding rod, which drop and mix with the molten metal of the part being repaired to form the weld.

A fairly good job of welding a washer to a piece of pipe was accomplished by this method, but because of the low degree of penetration, it took about twice as long a time as standard sized welding equipment would have required to do the same job. On cast iron this lack of penetration was more obvious for the weld broke easily, and when the fracture was examined, the welding job was found to be entirely unsatisfactory as the metal forming the weld lay on the surface without penetration. Despite the utmost caution in attempting to weld thin aluminum, holes were melted in the thin sheet. The upshot of these experiments was that, in the expert welder's opinion, after a thorough trial, the *Magic Wand Welder* was not practical and would be of little value around a farm or home except for the lightest type of work on steel.

According to its manufacturer, the *Magic Wand Welder* has a welding output of over 40 amperes and an average line draw (input) of 12 amperes. Under some conditions it will draw considerably more than 15 amperes and consequently *it is not suited to use on regular 110 to 120 volt house circuits*, which are safe for no more than 15 amperes.

C. Not Recommended

Magic Wand Welder, Model "A-1" (Patent Specialties Inc., 4020 Tenth Ave., New York 34) $34.50.

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Front-Wheel Drive *vs.* Rear-Wheel Drive Automobiles

THE possible introduction later this year of a front-wheel drive car (*Kaiser*) will undoubtedly raise many questions concerning the advantages and disadvantages of "pulling" a car by its front wheels rather than "pushing" it from its rear wheels. (Up to this time, with the exception of racing cars and a few special types, there has been only one production make of automobile, the *Cord* [1937], from which American drivers could learn about the characteristics of this type of drive.) Since the Jeep is so designed that the front as well as the rear wheels of the car may be used as driving wheels, comments concerning it can also properly be included in this resumé.

ENGINEERS usually have refrained from encouraging the introduction of cars with front-wheel drive because of important differences in driving habits which this type of drive involves, especially under driving conditions where there is risk of skidding.

Under dry road driving conditions little if any difference from rear drive will be noticed in handling a car of front drive type.

The front-wheel drive is advantageous when roads are covered with deep snow or are rutted and muddy, as the tendency is for the front wheels to lift the car up over the snow or mud. Experienced drivers are familiar with the fact that it is easier to back a conventional rear-driven car out of a soft spot in the road than to push it out by driving forward. In the same way, with the front-drive car, it is easier to go forward out of the soft or muddy spot. (This same advantage applies to the Jeep when the front drive is connected.)

When ascending a hill (see Figure 1), the front drive is at a serious disadvantage, for on a steep incline, an appreciable part of the car's weight shifts from the front to the rear wheels. Thus the weight on the front wheels is reduced, i.e., the front end of the car becomes lighter. With a front-drive car, therefore, a reduction in available traction occurs. The front driving wheels will slip more easily than those in a rear-drive car. By designing the front-drive car so that a greater than normal percentage of the car's total weight rests on the front wheels, this dis-

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advantage becomes less significant.

In recent years there has been a tendency to distribute more of the weight of the conventional car toward the front wheels, but manufacturers have only gradually increased the relative amount of *braking force* applied to the front wheels. One result of this has been that the front wheels of the car usually will slip only after the rear wheels have begun to slide. Since the introduction of four-wheel brakes in the early 1920's, the braking effect on the front wheels has been gradually increased from about 35 percent to a maximum of 60 percent of the total braking effort. Even so, engineers still could increase the effectiveness of brakes, particularly for stopping from high speeds, by further increases in front-wheel effectiveness. In such cases, however, the front wheels would almost invariably slide before the rear wheels did, thus introducing a condition with which the ordinary driver is not familiar; for when the front wheels slide, the car goes straight ahead, whether it is on a straight highway or is making a turn. Until drivers can be taught *never* to apply the brakes while the car is on a turn, little more can safely be done in the way of changing the braking force on front braking wheels. "Steerage" is completely lost when front wheels slide, and only when they stop skidding do they again act to steer the car.

When the front wheels both steer and drive the car, a similar condition may easily develop. The front wheels may slip on wet surfaces, and jump or hop sidewise on surfaces of loose sand or gravel, especially when the car is making a turn.

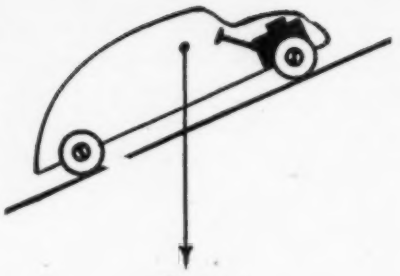

Figure 1

In a front-drive car, weight shifts toward the rear when the car is climbing a hill, resulting in reduced traction at the front wheels.

This is analogous to the situation the driver of a rear-drive car occasionally finds himself in if the front wheels skid when rounding a turn, although the rear wheels (since they are the driving wheels) usually slide first. By applying power, the driver may regain control by "driving out a skid on a turn," a method used by experienced drivers to hold the front end of a rear-drive car into the turn even though the rear end continues to slide. With a front-drive car, the application of power increases the tendency of the front wheels to slide, but by turning the front wheels into the turn still more (and continuing to apply power), the car may be prevented from leaving the road. It is all very well for advocates of front drive to say that the car will be "pulled around a turn." It will be "pulled," but only "around the turn" if the driver has learned the proper technique. Notice the difference between this technique and the practice of momentarily turning the steering wheel out of the turn a little and easing up on the throttle to stop the skid, then reapplying the power, as used on rear-drive cars.

The greatest difference in driving technique between front- and rear-drive automobiles, and the one which definitely introduces a serious hazard, is the method which *must* be followed to regain control if a skid occurs when driving straight ahead on slippery road surfaces. When power is applied, the front wheels will slip first (because they also are the pulling or driving wheels). If the road surface is crowned, the front end of the car will try to move to the driver's right. If he tries to correct this by turning the steering wheel to the left, the condition will not be corrected, may rather be aggravated unless he does something he would not do with a rear-drive car. With the rear-drive car, by reducing power (or throwing out the clutch), and perhaps turning the wheel to the right momentarily, the skid may be stopped and control regained. *With the front-drive car, the driver must do exactly the opposite*, namely, apply power and turn the front wheels to the left, two actions which his rear-drive practice has taught him to be wrong. In other words, the front end of the car must be pulled into alignment with the edge of the road again, the rear end merely trailing behind the front end of the car.

If the car skids when descending a hill, the same new practice must be followed. Instead of reducing power, it must be strongly applied, again in an effort to pull the front end of the car into position. To apply power when a car is skidding, in order to stop a skid, is contrary to everything that the ordinary driver has learned, and it is not easy, even when he knows it must be done to avoid an accident, especially when the speed of the car is to be increased by applying the

power. Yet this is the only way to recover control, with the added possibility that the rear end of the car may also start to zig-zag due to simultaneous skidding of the rear wheels.

The situation is not nearly so serious with four-wheel drive as a given amount of driving force is applied to four instead of two wheels; thus there is not so great a tendency for either pair of them to slide as with either a front- or rear-drive car. More driving force can therefore be applied with the same chances of skidding as with either of the other types, but, depending upon the load carried (which changes weight distribution between front and rear wheels), either set of wheels may slide first. For driving on slippery roads, only the rear drive needs be used, so the Jeep may be handled just like any rear-drive car.

* * *

It is our belief that if the *Kaiser* car is brought out as a front-drive type, its winter driving accident rate may be far higher than with conventional rear-drive automobiles. Such a car may be all right for limited sale to those who care to acquire the rather complex new skills required. Front-wheel drive does not, however, seem to us to be an innovation that will help to build popularity for a new low- or medium-priced automobile.

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Waterproof Crib Sheets

WATERPROOF sheets for use on baby's bed between the cotton sheet and the mattress are a necessity in any home where there is a newborn or young baby. The most important single characteristic of crib sheets is their ability to resist over a long period the penetration of water.

It is desirable also that they should be easily washable and quick to dry, and that they should be strong enough to withstand the wear of washing and use, and the pulling they are likely to sustain while being put on and taken off the crib or bassinette. A sheet that will stay smooth and free from wrinkles is to be preferred, of course, and many sheets have grommets through which pins or tapes may be put, or have tapes attached for use in tying the sheets to the slats of the crib. Grommets are considered somewhat more durable and therefore to be preferred to attached tapes for this purpose.

The samples tested included muslin or fleeced cloth coated with resins or synthetic rubbers, and resin, pyroxylin, or synthetic rubber sheeting. In CR's previous test of crib sheets, made in 1944, the resin sheets tested had the undesirable property of developing many small holes when stretched. The resin sheets included in the present test did not do this. A small hole would develop just prior to failure, but not at low values of elongation.

The coated fabric sheeting tested was of two types: Coated on one side, and coated on both sides. Because the fabrics coated on both sides will tend to give greater protection against water penetration, this type was judged to be preferable.

When sheeting has a bound edge, it is desirable that the binding be waterproof too. Though heavy sheeting would have the advantage of greater strength and perhaps greater water resistance, it will be less comfortable for the child than thin sheeting, owing to the stiffening of the bed clothing and the larger thermal capacity of the heavier sheets, which makes for discomfort through producing a feeling of cold in cold weather, or of heat in hot weather.

Tests were made of the permeability, staining, bursting strength, and thickness of the sheetings tested. They were also examined for workmanship and for conformity to marked size. In each listing, the size given in parentheses after the marked or nominal

size is the actual measured size of the sample.

Ratings are cr46.

A. Recommended

Baby-kin. 45c. 18 x 27 in. (17 x 26 in.). Muslin, coated on one side with synthetic rubber. Raw edges. Workmanship not good, but performance was satisfactory in all respects.

Roly Poly (Sears-Roebuck's Cat. No. 29—5559) 27c, plus postage. 18 x 18 in. (17¾ x 18¼ in.). Sheet made of resin and bound with the same material. Workmanship was good, and performance satisfactory in all respects except bursting strength, which was somewhat low.

Flotex (Holland-Rantos Co., Inc., New York City) 89c. 27 x 36 in. (27¼ x 38¾ in.). Muslin, coated on one side with pyroxylin or a resin. Raw edges, selvages unimpregnated. Had four grommets. Workmanship was fair, and performance satisfactory except for some staining.

Reign-tex, No. 53 (Distributed by 5-and-10-cent stores) 45c. 18 x 27 in. (18 x 27 in.). Muslin, coated on both sides with synthetic rubber. Raw edges. Workmanship was good, and performance satisfactory except for some staining.

Plymouth Perfect, No. 303 (Plymouth Rubber Co., Inc., Canton, Mass.) 98c. 27 x 36 in. (25½ x 36½ in.). *Bunalite* (synthetic rubber) sheet. Raw edges. Workmanship was good, and performance satisfactory except for some staining. Material was very heavy (2.36 oz. per sq. ft.). Because of its extreme extensibility ("stretchability") it did not break in the bursting test.

B. Intermediate

Cradletyme, No. 1810 (A. F. Sauer Co., Milwaukee) $1.39. 27 x 36 in. (26⅝ x 37⅝ in.). Muslin, coated both sides with pyroxylin or resin, bound with cotton bias tape. Three long cotton tapes on each side. Workmanship was fair, and performance satisfactory except for bad staining.

Dee's Victory Dri-Sheet (Givens & Co., Western Springs, Ill.) 55c. 18 x 27 in. (17½ x 27 in.). Fleeced cloth, coated on one side with pyroxylin or resin. Pinked edges. Workmanship was fair, and performance was satisfactory except for some staining. Should be durable, but was found to be slow drying when laundered.

Le Chalet (Le Chalet, N.Y.C.) 45c. 18 x 27 in. (17 x 26 in.). Muslin, coated on one side with pyroxylin or resin. Pinked edges. Workmanship was fair, and performance was satisfactory.

Empire, No. 330 (Distributed by W. T. Grant stores) 39c. 18 x 27 in. (17½ x 27 in.). Muslin, coated on one side with synthetic rubber. Raw edges. Workmanship not good, and performance fair.

C. Not Recommended

Wards (Montgomery Ward's Cat. No. 31—2656) 43c, plu. postage. 18 x 27 in. (18 x 26¼ in.). Sheet made of resin and bound with the same material. Workmanship was good, and performance fair except for bad staining, and bursting strength, which was somewhat low.

Archerite B, No. 306 (Archer Rubber Co., Milford, Mass.) 35c. 18 x 18 in. (17 x 17½ in.). Sheet made of resin and bound with tape of the same material. Workmanship was good, and performance fair except for staining, and bursting strength, which was somewhat low.

Prestige, No. 5317 (Goodyear Rubber Sundries, Inc., New Haven, Conn.) 39c. 27 x 36 in. (26¾ x 35¾ in.). Muslin, coated on one side with pyroxylin or resin. Raw edges. Had four grommets. Workmanship was fair, and performance fair except for high degree of permeability to water (poorest of the sheets tested in this respect).

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Cleaning Tree Roots Out of Sewers

THE following discussion is of concern primarily to those living in homes having private sewage disposal systems, involving use of septic tanks or cesspools. Stoppages due to roots in drainage pipes should not occur in sewage lines going from house to city sewers, or sewers of municipal and community systems, as in those, sewerage lines are required by sanitary codes to be tight, with caulked joints, and if a leak develops which would permit any root entry, the owner should have the line dug up and repaired rather than attempting to use chemicals or other means to keep roots out. (A leak in a raw sewage line constitutes a definite danger to health.)

Further, the problem of root obstruction in private sewage disposal systems applies only to the part of the system extending out from the septic tank, for the line between the house and septic tank must be tightly cemented and caulked and the owner should repair openings that would permit root entry rather than attempt to apply chemical measures against root encroachment.

When the water starts backing up in all of the plumbing fixtures in the home or doesn't seem to go down freely in toilet bowls, it is possible that it means one of the ordinary partial stoppages which occur occasionally in sewer piping, or

tree roots may have found means of entrance into the sewer line at a break or joint in the pipes. The latter difficulty is one that plumbers say is of rather frequent occurrence. If plugging of the line by roots has begun, it will probably grow worse, for the continued growth of the roots will eventually plug the pipe so tight that the plumbing fixtures will become entirely unusable. In addition to matted material from tree roots, there are also under some conditions algae-like growths which occur in masses capable of stopping drains.

Well before this stage is reached is the time to consider doing something about it. Fortunately, there seems to be a rather simple, although not dependably effective, method of clearing a sewer of roots (and of the algae-like growths referred to)—at least in the early stages of root growth. Root growth does not occur in cold winter months, but may begin early in the spring where roots are present close to sewers through which warm water flows. Treatment of partially plugged sewers with copper sulfate crystals (blue vitriol) has been reported of value. Copper sulfate of technical grade (the cheapest) is sold by chemical-supply houses for about 35 cents a pound. The coarse crystals of the chemical are put into the sewer ahead of (above) the root plug so that they can dissolve and act on the roots. The crystals are best put into the sewer through a cleanout opening or manhole, depending on where the roots are. A cupful has been reported adequate for one treatment and the treatments should be repeated at least once a month during the growing season.

Some consider that this treatment may even *remove* small roots from the pipe. Since the method is inexpensive, it will often be worth trying, as the expensive alternative to this treatment involves calling a plumber who owns a mechanical cutting appliance which can be pushed through the pipe to destroy the roots. Use of the plumber's services for the job may cost a substantial sum, including a charge for the use of a sewer auger and the plumber's time in the work and in traveling to the job. The treatment with copper sulfate might possibly have some adverse effect on the trees whose roots are plugging the sewer; however, since this method of clearing sewers has been used for a number of years and no harmful effects on the trees have been reported, it seems probable that no trouble will be experienced. On the other hand, one must have in mind that this method is not a sure one in any case. It will probably fail to clear the piping, as a line once blocked with fibrous material is a rather hopeless proposition. It should be noted, moreover, that this treatment would probably be unsafe to use if it were applied to the part of the piping ahead of the septic tank, since the copper sulfate, if used in sufficient amount to affect the roots, might interfere with the bacterial action going on within the tank. (Theoretically, the copper sulfate might prove to some degree toxic to the plant life having its roots in soil watered by the effluent from the septic tank, but it is doubtful if this would be of practical significance in any normal case.)

A product called *M-Q Sewer Cartridge* consists of a paper container that is intended to lodge in the root mass and be held at the obstruction in the pipe while the chemical contents are slowly fed out into the water stream. The material in the small cardboard containers (1 dozen, 2 inches high by 1½ inches in diameter, priced at $1.50) was identified as commercial sodium hydroxide. This substance is thought to have some merit as a remover of grease, fibers, etc., particularly protein fibers, such as wool, hair, etc. The directions say that *M-Q* cartridges are not to be used with a septic tank and are not intended to work in a completely plugged sewer. Advertising of the product, however, does not make this point, so that the consumer would learn about it only after receipt of his purchase, if he were to buy it by mail, or did not take time to read labeling closely, in case of a purchase in a store.

The claim that the product will "remove all organic obstructions in sewers. . .removes roots, grease, and any organic material" seems highly questionable. This claim, however, is negatived by a comment in the manufacturer's statement of claims on the carton: "A preventive not a cure."

Substantially the same effects that would be produced by the *M-Q Cartridge* could be obtained by using caustic soda down the nearest drain. The idea of a cartridge lodging against obstructions in a sewer pipe is interesting from a theoretical standpoint, but one expert considers that if the obstruction is sufficient to hold back the cartridge, it would also in normal cases block the line as well, and in such a case a sufficient quantity of caustic soda solution poured into the sewer line at an appropriate opening would do the same job.

Caustic soda, is of course, a highly poisonous and corrosive substance, and it is most important that this should be kept in mind, and the greatest care taken in its handling, and pains also taken that it could not under any circumstances get into the hands of children.

The New "High-Powered" Gasolines

JUST why the advertising agencies of oil refiners deem it necessary to claim that the new fuels now on the market, and those to come in the future, are "more powerful" than pre-war fuels is to many engineers one of those mysteries of the advertising business and the kind of people who have jobs in advertising. Presumably it is because advertising men believe the public is too dumb to put two and two together, or to appreciate just what the new fuels can now and may later accomplish. Or perhaps they believe that it is only in the matter of disclosing secrets to foreign government agents that there is objection to "loose talk."

First of all, what is meant by "more powerful"? Does it imply that your engine will deliver more horsepower than before? It would seem so. Or perhaps only the *fuel* is "more powerful," even though it may not increase the power of the engine you now own. If the latter only is claimed, then what is meant by "power"?

"Power" in the technical sense means that "energy" has been transformed into useful "work" done at a certain rate or speed. The energy may be that stored up or available in one form or another, such as the height of water above the bottom of a waterfall. It may be electrical or chemical in nature, or bound up in a fuel which can be burned in an engine to produce heat. In the latter case—the one which concerns us now—the measure of the available energy of the fuel is simply the amount of heat it will produce (Calorific Value). This in turn is measured in calories or (by engineers) in British Thermal Units, also called Btu's.

The real point therefore is whether or not the new "more powerful" fuels have higher Btu value than those of pre-war vintage. The answer is very likely to be "No." Even if there is an increase, as there may be in some cases, that increase will be insignificant in amount; actually the trend is toward fuels of somewhat *lower* heat of combustion (Btu) value, and has been for some years.

The implication throughout much current advertising is that the fine aviation fuels produced during the war have been modified for use in automobiles. All well and good. There is no quarrel with the industry, which has done a magnificent job in producing sufficient fuel of high octane rating to meet all requirements of our Armed Forces, both those in the air and on the ground. Its advertising men, however, have never seemed to be bound by any feeling for accuracy or factual truth, for indeed, if developments of gasoline for aviation use are referred to, specification requirements for "power" and for "Btu content" have *declined* during the past fifteen years—even though high heating value has its importance in its effect upon determining cruising distance, which is of vital importance with planes. (The extent of the change may be seen in the following figures: 19,000 Btu per pound in 1929 to 18,300 to 18,700 in 1942. Some commercial-grade aviation fuel had 20,500 Btu in 1937.)

Perhaps we are a "stickler" for honesty and care in the use of words. The new automobile fuels do behave very well in our cars. Easy starting, smooth acceleration, good hill climbing ability and little tendency to knock—quite a contrast with wartime fuels, especially as to the last-mentioned item. Yet we can recall that no one has mentioned that the fuel increased the power of his engine. Automobiles are so powerful today that we doubt if any slight increase would be apparent even if it occurred; thus there would be no need for claiming additional power except to furnish a handle for the advertising man to lend distinction to his offering. Actually, the only noticeably improved factor is the octane rating plus perhaps some improvement due to different vaporization characteristics than previously available.

In cars to come after 1946, it is quite probable that "more power" will be derived from the same or a smaller size of engine, and we will have better fuel economy; this will come about, not because the fuel itself will be of higher Btu content (more "powerful"), but because the higher octane rating permits of *higher compression pressures* being utilized.

Off the Editor's Chest

(*Continued from page 2*)

necessary to continue the subsidy program in order to keep the cost of living down. The greater part of the population in this country either works for a living or is dependent on a wage or salary earner, and as the family knows too well, regular deductions are made in the form of payroll taxes which considerably cut down the take-home pay. Part of these deductions go to pay for subsidies on meat, certain dairy products, flour, and, in the past, on sugar, butter, cheese, and a number of other products. It has been estimated that to maintain the fiction of holding down the price of meat alone the government has paid the meat-packing industry the equivalent of approximately $16 for each family in the United States. The homemaker may have found that her weekly household money went farther if butter were subsidized so that it sold—when there was any—at 56 cents a pound, but the "saving" to her was not a real one, for it came out of her husband's pay envelope or check, and since the cost of administering the program is unfathomable and unreported, the family unquestionably suffered a lowering of its standard of living by indirect payments through the government rather than by direct payments to grocers and butchers.

An interesting comparison was read into the Congressional Record, January 22, 1946 (p. A170), by Representative William H. Stevenson of Wisconsin, which compared prices of products advertised in the LaCrosse Tribune on September 1, 1939, and on October 4, 1945. For reasons of space, only a few are listed below. Those who are interested will undoubtedly be able to obtain that particular issue of the Record from their own Congressman.

September 1, 1939

Hamburger, 1 pound, 14 cents
Sirloin steak, 17 cents a pound
Leg of lamb, 19 cents a pound
Pork chops, 18 cents a pound
Flour, 49-pound sack, $1.49
Carrots, 4 cents a bunch
Oranges (small), 15 cents a dozen
Ladies' sport coats, $9.50 to $19.50
Snow suits, $3.95
Men's suits, 2 pairs trousers and a vest, $17.50 and $22.50

October 4, 1945

Hamburger, 1 pound, 25 cents
Sirloin and round steak, 40 cents
Leg of lamb, 35 cents a pound
Pork chops, 33 cents a pound
Flour, 49-pound sack, $2.39
Carrots, 10 cents a bunch
Oranges (same size), 30 cents a dozen
Sport coats, $45 and $55
Snow suits, $14.95
$45 and up (one pair trousers, no vest)

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Note that on several of the items, such as meat and flour, there was a subsidy in October 1945 which would bring the real prices as actually paid by consumers still higher than the table indicates. It is in order to ask the OPA just *what price line* we are holding.

No matter what skillful phrasiology is used to justify the present wage rises and the accompanying price rises, the policy will work hardship on a great many millions of people, people whose interests just do not receive consideration in Washington. It has been estimated that between half and two-thirds of the people in the United States are outside of the farm group, that is now receiving subsidies, and the organized-labor group, which has been and is currently forcing higher wages. Obviously the cost of living of this outside group is being increased with the government's blessing and cooperation—no "line is being held," or even even plausibly pretended to be held, for them. This is plainly becoming a country where the interest and welfare of minorities strongly entrenched politically takes precedence over the common welfare of all the people. One suggestion that points the way to remedying this state of affairs is to be found in a statement by Robert M. Hutchins, President of the University of Chicago, recently quoted in The Cooperative Consumer:

> If we are prepared simply to take the view that we are all consumers, that this is, economically, our only common bond, and that we should unite as consumers in the conviction that everybody should get the most of the best for the least, many of our economic difficulties would cease to plague us. In this view the pressure group that tries to keep us from getting the most of the best for the least is our natural enemy; and the remedy is not to form a pressure group of our own to get a larger share of the consumer's dollar for less, but to abolish all pressure groups, so that the consumer may get the most of the best for the least.

At the risk of being called "political fundamentalists" and "behind the times," we commend Mr. Hutchins' statement to the responsible government officials, plus a policy of encouraging instead of hampering production as a sound guide for protecting the majority of people of the United States from the dangers and hardships of inflation.

Gasoline and Lubricating Oil Bulletin

SUBSCRIBERS' attention is called to the availability of *Special Bulletin 26* entitled "A Consumer's Study of Automobile Gasolines and Lubricating Oils." This Bulletin is of value to any consumer who wants to know how much weight he should give to oil companies' advertising, whether he should take the filling station's advice that his oil should be changed frequently, who would like to make savings through purchase of low-priced oils but has been led by arguments of service station owners and others to fear that he might in some way injure his engine or car by doing so. The Bulletin will also be of value to those who have been tempted to purchase one or more of the expensive "oil specialties" that are now being widely promoted by garages and filling stations. It helps one, too, to decide whether a premium-priced gasoline is needed, or whether the extra price is largely money thrown away. (Some argue that premium gasolines "pay" because of the extra mileage allegedly provided.)

Although a small part of the material in this Bulletin is not now up-to-date (as the Bulletin was first issued in 1937), much the largest part of the information contained is still useful and reliable.

The principal topics treated are: Automobile Oil in General; Acidity; Viscosity; Changing Oil; Oil Consumption; Reclamation of Used Oil; "Special Oils"; Qualities of Gasoline; Antiknock; Ease of Starting—Tendency to Vapor Lock; Acceleration; Power and Mileage; Gasoline-Alcohol Mixtures; Gasoline "Dopes." The Bulletin gives the background of the numerous gasoline "dopes" which are sold as "pepper-uppers" and "stepper-uppers" under various alluring claims.

The 16-page Special Bulletin is obtainable from CR at the reduced price of 15c (stamps or coin acceptable).

Emulsion for Treating Dustcloths

Dusorb is a product known to chemists as an emulsion polish, to be used for saturating a clean cloth preparatory to using it as a dustcloth. It is a white emulsion priced at $1 for a 32-ounce bottle. Analysis indicates a content of 72% water, 1½% soap, 1.0% "red oil" (free fatty acid calculated as oleic acid), 0.5% sulfonated detergent, 25% spindle oil. A small amount of alcohol is present as a blending agent. The sulfonated detergent and soap are present as emulsifying agents to help loosen the grime on the surface being polished so that a cleaned surface is polished rather than a dirty one (as would be the case with a straight oil polish). Probably on most surfaces no harm will be done by the residue of oil and soap which would remain after the use of *Dusorb*. On the other hand, the residual detergents left on a painted surface after cleaning will do the paint coating no good, and after a long period of use, the surface might be harmed to some degree. This danger, applicable to *Dusorb's* use on varnish coatings also, is, however, considered slight for most uses of the material.

The product seems quite high in price, considering the cheap and simple ingredients which it contains.

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† indicates that listings of names or brands are included.

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Box Office, Chicago Daily Tribune, The Christian Century, Cue, Daily News (N.Y.), *The Exhibitor, Harrison's Reports, Mademoiselle, Motion Picture Herald, National Legion of Decency List, Newsweek, New York Herald Tribune, New York Times, Parents' Magazine, Release of the D.A.R. Preview Committee, Successful Farming, Time, Variety* (weekly), and *Unbiased Opinions of Current Motion Pictures* which includes reviews by the General Federation of Women's Clubs, the American Legion Auxiliary, National Film Music Council, and others.

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Technicolor or Cinecolor)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
soc—social-problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	6	8	**Abbott and Costello in Hollywood**	*mus-com AYC*
—	8	2	**Abilene Town**	*mus-wes AY*
1	8	5	**Adventure**	*mel A*
—	1	2	**Adventure for Two**	*dr AYC*
—	3	7	**Adventures of Rusty**	*dr AYC*
—	1	10	**Allotment Wives**	*war-mel A*
1	4	—	**Along the Navajo Trail**	*mus-wes AYC*
—	1	3	**Ambush Trail**	*wes AYC*
—	1	5	**Angel Comes to Brooklyn, An**	*mus-com A*
—	1	7	**Apology for Murder**	*cri-dr A*
3	3	1	**Appointment in Tokyo**	*war-doc AY*
—	6	1	**Bad Bascom**	*mel AYC*
—	5	2	**Bandit of Sherwood Forest**	*hist-dr-c YC*
—	3	1	**Bandits of the Badlands**	*wes A*
—	1	3	**Barge-Keeper's Daughter, The**	*com A*
1	5	1	**Battle for Music**	*mus-doc AYC*
—	7	7	**Because of Him**	*mus-dr A*
—	2	3	**Behind City Lights**	*dr A*
—	4	5	**Behind Green Lights**	*cri-mel A*
7	9	2	**Bells of St. Mary's, The**	*dr AYC*
—	3	3	**Black Market Babies**	*mel A*
—	1	4	**Blazing the Western Trail**	*mus-wes AYC*
4	10	3	**Blithe Spirit**	*com-c A*
—	—	9	**Blonde Ransom**	*mus-com A*
1	4	1	**Blue Dahlia, The**	*cri-mel A*
—	1	6	**Border Badmen**	*wes AYC*
—	3	2	**Both Barrels Blazing**	*mus-wes AYC*
—	10	2	**Breakfast in Hollywood**	*mus-com A*
4	1	—	**Burma Victory**	*war-doc A*
—	3	—	**California Gold Rush**	*wes AYC*
—	7	9	**Captain Kidd**	*mel AYC*
—	2	5	**Captain Tugboat Annie**	*mel AYC*
—	—	5	**Castle of Crimes**	*mys-mel A*
—	1	3	**Catman of Paris, The**	*cri-mel A*
—	1	4	**Cinderella Jones**	*mus-com A*
—	1	6	**Close Call for Boston Blackie**	*cri-mys A*
—	2	6	**Club Havana**	*mus-mel A*
—	2	1	**Code of the Lawless**	*wes AYC*
1	8	3	**Col. Effingham's Raid**	*dr A*
—	2	4	**Come out Fighting**	*com AYC*
1	5	7	**Confidential Agent**	*war-mel A*
—	13	2	**Cornered**	*war-mel A*
—	—	3	**Crazy Knights**	*cri-mel AYC*
—	6	3	**Crime Doctor's Warning, The**	*mys-dr A*
—	4	5	**Crimson Canary, The**	*mus-dr A*
—	5	6	**Dakota**	*mel A*
—	6	5	**Daltons Ride Again, The**	*wes AYC*
—	4	8	**Danger-Signal**	*mel A*
—	2	6	**Dangerous Intruder**	*cri-mys A*
—	8	7	**Dangerous Partners**	*mel A*
—	4	2	**Danny Boy**	*dr AYC*
—	6	3	**Deadline at Dawn**	*cri-mel A*
—	4	3	**Detour**	*cri-mel A*
—	5	6	**Diary of a Chambermaid**	*dr A*
—	7	2	**Dick Tracy**	*mel A*
—	1	2	**Ding Dong Williams**	*mus-com AYC*
—	6	2	**Doll Face**	*mus-com A*
—	10	6	**Dolly Sisters**	*mus-com-c A*
—	7	—	**Don't Fence Me In**	*mus-wes A*
1	2	1	**Dragonwyck**	*nov A*
—	1	2	**Drifting Along**	*mus-wes AYC*
1	14	4	**Duffy's Tavern**	*mus-com A*
—	4	6	**Easy to Look At**	*mus-com AYC*
—	8	5	**Enchanted Forest, The**	*fan-c AYC*
—	1	5	**Face of Marble**	*cri-mel A*
1	2	6	**Fall of Berlin**	*war-doc A*
1	4	7	**Fallen Angel**	*mys-mel A*
—	—	5	**Fatal Witness, The**	*cri-mel A*
—	2	2	**Fear**	*cri-mel A*
—	3	1	**Fedora**	*dr A*
—	1	2	**Fighting Bill Carson**	*wes AYC*
—	7	8	**First Yank into Tokyo**	*war-dr A*
—	—	3	**Flaming Bullets**	*mus-wes AYC*
—	1	5	**Flying Serpent, The**	*mel A*
—	6	5	**Follow That Woman**	*cri-mel A*
—	1	3	**Four Hearts**	*mus-rom A*
—	1	2	**Frontier Feud**	*wes AYC*
—	8	4	**Frontier Gal**	*mus-wes-c A*
—	2	2	**Frontier Gunlaw**	*wes AYC*
—	5	5	**Game of Death, A**	*cri-mel A*
—	5	4	**Gay Senorita, The**	*mus-com AYC*
—	6	11	**George White's Scandals**	*mus-com A*
—	6	6	**Getting Gertie's Garter**	*com A*
—	4	4	**Girl No. 217**	*war-dr A*
—	3	6	**Girl of the Limberlost**	*mel AYC*
—	1	7	**Girl on the Spot**	*mus-dr AY*
—	1	5	**Girls of the Big House**	*cri-mel A*
1	9	6	**Guest Wife**	*com A*
—	1	7	**Guy Could Change, A**	*dr A*
—	2	3	**Half-Way House, The**	*fan A*
1	12	3	**Harvey Girls, The**	*wes-mus-com-c A*
—	1	4	**Hit the Hay**	*com AYC*
—	3	11	**Hold That Blond**	*com A*
—	3	2	**Hoodlum Saint, The**	*mus-dr A*
—	—	3	**Hotel Reserve**	*war-mel A*
—	2	9	**House of Dracula**	*cri-mel A*
5	11	—	**House on 92nd St., The**	*war-mel AYC*
—	2	3	**How Do You Do?**	*mus-cri-com A*
—	2	6	**I Love a Bandleader**	*mus-dr AYC*
—	—	6	**I Ring Doorbells**	*cri-mel A*
—	2	2	**Idea Girl**	*mus-com A*
1	5	6	**Isle of the Dead**	*mys-mel A*
—	6	3	**It Happened at the Inn**	*mel A*
—	10	6	**Johnny Angel**	*mys-mel A*
1	5	2	**Johnny in the Clouds**	*war-dr A*
1	2	—	**Journey Together**	*war-doc AY*

A	B	C		
1	14	3	**Kiss and Tell**	*com A*
2	7	2	**Kitty**	*dr A*
—	4	9	**Lady on a Train**	*mys-com A*
4	13	1	**Last Chance, The**	*war-dr A*
—	3	2	**Lawless Empire**	*wes AYC*
3	5	7	**Leave Her to Heaven**	*dr-c A*
—	6	1	**Letter for Evie, A**	*war-com A*
—	4	5	**Life with Blondie**	*war-com AYC*
—	3	2	**Lightning Raiders**	*wes AYC*
—	3	2	**Live Wires**	*com A*
—	2	1	**Lone Texas Ranger, The**	*mus-wes AYC*
—	1	4	**Lost Trail, The**	*wes AYC*
3	11	3	**Lost Weekend, The**	*nov A*
—	1	9	**Love, Honor and Goodbye**	*com A*
2	12	4	**Love Letters**	*war-dr A*
—	2	4	**Love on the Dole**	*dr A*
—	6	2	**Madonna of the Seven Moons**	*dr A*
—	4	1	**Madonna's Secret, The**	*dr A*
—	3	8	**Mamma Loves Papa**	*com A*
—	3	10	**Man Alive**	*com A*
—	8	—	**Man from Oklahoma**	*mus-wes AYC*
—	7	6	**Man in Grey, The**	*dr A*
—	7	1	**Marie-Louise**	*war-dr AYC*
—	1	2	**Marshal of Laredo**	*wes A*
—	2	3	**Mask of Diijon, The**	*mys-mel A*
—	8	8	**Masquerade in Mexico**	*mus-com A*
—	5	3	**Meet Me on Broadway**	*mus-com A*
—	4	9	**Men in Her Diary**	*com A*
—	4	6	**Mexicana**	*mus-com A*
2	9	6	**Mildred Pierce**	*dr A*
—	2	4	**Military Secret**	*war-mel A*
1	7	4	**Miss Susie Slagle's**	*dr AYC*
—	5	—	**Murder in the Music Hall**	*mus-mys-mel A*
—	11	3	**My Name is Julia Ross**	*cri-mys A*
2	4	5	**My Reputation**	*dr A*
—	—	3	**Navajo Kid**	*wes AYC*
—	3	—	**Navajo Trail, The**	*wes AYC*
—	—	3	**Notorious Lone Wolf, The**	*cri-mel A*
—	5	4	**On Stage Everybody**	*mus-com AYC*
—	4	1	**Once There Was a Girl**	*dr A*
—	4	4	**One Way to Love**	*com A*
—	3	—	**Open City**	*war-dr A*
2	13	—	**Our Vines Have Tender Grapes**	*dr AYC*
—	4	3	**Out of the Depths**	*war-mel AY*
—	—	7	**Outlaws of the Rockies**	*mus-wes AYC*
—	11	4	**Over 21**	*com A*
1	7	5	**Pardon My Past**	*com A*
—	8	5	**Paris Underground**	*war-mel A*
—	4	6	**People Are Funny**	*mus-com AYC*
—	3	7	**Pillow of Death**	*cri-mel A*
—	5	3	**Portrait of Maria**	*dr A*
—	1	2	**Prairie Rustlers**	*wes AYC*
2	12	2	**Pride of the Marines**	*war-dr A*
—	2	7	**Prison Ship**	*war-mel A*
—	6	5	**Pursuit to Algiers**	*mus-mel AYC*
—	3	9	**Radio Stars on Parade**	*mus-com AYC*
—	—	6	**Red Dragon, The**	*mys-mel AYC*
—	2	1	**Return of the Durango Kid, The**	*mus-wes AYC*
—	—	5	**Rhythm Round-Up**	*mus-wes AYC*
—	—	4	**Riders of the Dawn**	*mus-wes AYC*
—	2	10	**River Gang**	*mel A*
—	1	5	**Riverboat Rhythm**	*mus-com A*
—	2	4	**Road to Alcatraz**	*cri-mys AYC*
2	7	1	**Road to Utopia**	*mus-com A*
—	—	5	**Rockin' in the Rockies**	*mus-wes AYC*
—	2	2	**Romance of the West**	*mus-wes-c AYC*
1	3	1	**Rough Riders of Cheyenne**	*wes AYC*
—	1	4	**Rustlers of the Badlands**	*mus-wes AYC*
—	—	—	**Rusty (See Adventures of)**	
—	6	5	**Sailor Takes a Wife, The**	*com A*
—	10	1	**San Antonio**	*mus-wes-c AYC*
4	7	4	**Saratoga Trunk**	*mel A*
—	6	9	**Scarlet Street**	*mel A*
—	6	3	**Scotland Yard Investigator**	*mys A*
—	2	9	**Senorita from the West**	*mus-rom AYC*
—	—	5	**Sensation Hunters**	*mel A*
—	5	—	**Sentimental Journey**	*dr A*
5	8	—	**Seventh Veil, The**	*dr A*
—	4	3	**Shadow of Terror**	*cri-mel A*
—	2	2	**Shadow Returns, The**	*cri-mel A*
—	10	2	**Shady Lady**	*mus-dr A*
—	5	4	**She Went to the Races**	*com A*
—	9	4	**She Wouldn't Say Yes**	*com A*
—	4	3	**Shock**	*cri-dr A*
—	3	5	**Sing Your Way Home**	*mus-com A*
—	4	1	**Six P.M.**	*war-mus-dr A*
—	1	3	**Six-Gun Man**	*wes AYC*
—	10	5	**Snafu**	*com A*
—	—	3	**Song of Mexico**	*mus-dr A*
—	—	3	**Song of Old Wyoming**	*mus-wes-c AYC*
—	2	1	**Song of the Prairie**	*mus-wes AYC*
—	—	4	**South of the Rio Grande**	*mus-wes AYC*
—	11	5	**Spanish Main, The**	*adv-c A*
8	6	2	**Spellbound**	*dr A*
—	3	5	**Spider, The**	*mys-mel A*
4	7	—	**Spiral Staircase, The**	*cri-mel A*
—	—	4	**Stagecoach Outlaws**	*wes AYC*
4	12	1	**State Fair**	*mus-com-c AYC*
1	13	1	**Stork Club, The**	*mus-com A*
—	—	—	**Strange Affair of Uncle Harry (See Uncle Harry)**	
—	2	8	**Strange Confession**	*cri-mys A*
—	1	3	**Strange Holiday**	*war-dr A*
—	2	3	**Strange Mr. Gregory, The**	*cri-mel A*
—	—	5	**Strangler of the Swamp**	*cri-mel A*
—	6	1	**Sunbonnet Sue**	*mus-dr AYC*
—	5	1	**Sunset in El Dorado**	*mus-wes AYC*
—	5	3	**Swing Parade of 1946**	*mus-com A*
—	2	6	**Tahiti Nights**	*mus-com A*
—	10	3	**Tars and Spars**	*mus-com A*
—	5	5	**Tarzan and the Leopard Woman**	*adv A*
—	2	8	**Ten Cents a Dance**	*mus-com A*
—	3	4	**Terror by Night**	*cri-mel AY*
—	3	2	**Texas Panhandle**	*wes AYC*
—	6	9	**That Night With You**	*mus-com A*
—	2	3	**They Made Me a Killer**	*cri-mel A*
6	9	1	**They Were Expendable**	*war-mel AYC*
1	7	6	**This Love of Ours**	*mel A*
—	8	2	**Three Strangers**	*mel A*
—	2	4	**Three's a Crowd**	*cri-mel A*
—	—	5	**Tiger Woman, The**	*mys-mel A*
—	4	3	**Tokyo Rose**	*war-mel A*
1	5	3	**Tomorrow is Forever**	*dr A*
—	8	5	**Too Young to Know**	*dr A*
—	2	1	**Trail of Kit Carson**	*wes AYC*
—	2	1	**Trail to Vengeance**	*mus-wes AYC*
—	—	3	**Trouble Chasers**	*com A*
7	5	—	**True Glory, The**	*war-doc A*
—	11	6	**Uncle Harry**	*cri-mel A*
—	7	3	**Up Goes Maisie**	*com AYC*
—	2	1	**Ural Front, The**	*war-dr A*
1	10	1	**Vacation from Marriage**	*war-com A*
—	5	—	**Virginian, The**	*wes-c AYC*
—	3	5	**Voice of the Whistler, The**	*mys-mel A*
—	4	—	**Wagon Wheels Westward**	*wes AYC*
3	6	3	**Walk in the Sun, A**	*war-dr AYC*
—	1	3	**Waltz Time**	*mus-com A*
—	5	4	**Wanderer of the Wasteland**	*wes AYC*
2	10	6	**Weekend at the Waldorf**	*mus-com A*
1	3	2	**Well-Groomed Bride, The**	*war-com A*
1	12	3	**What Next Corporal Hargrove**	*war-com AYC*
—	—	3	**Whirlwind of Paris**	*mus-com A*
—	3	7	**Whistle Stop**	*mel A*
—	1	7	**White Pongo**	*mel AYC*
—	3	6	**Why Girls Leave Home**	*mus-mel A*
—	2	2	**Wildfire**	*wes-c AYC*
—	3	5	**Woman Who Came Back, The**	*mel A*
—	3	—	**Yank in London, A**	*dr AY*
—	7	9	**Yolanda and the Thief**	*mus-com-c A*
—	11	5	**You Came Along**	*war-mus-dr AYC*
—	2	3	**You Can't Do Without Love**	*mus-mys AYC*
—	2	2	**Young Widow**	*war-dr A*
—	—	3	**Youth Aflame**	*dr A*
2	4	1	**Ziegfield Follies**	*mus-com-c A*

The Consumers' Observation Post

[Continued from page 4]

ELECTRIC REFRIGERATORS, washing machines, ironers, stoves, toasters, and other much needed items were out in full array at the house furnishings show in Chicago early this year. The question of when they would be available to consumers, however, was one that the salesmen could not answer. The steel strike and the electrical workers' strike have thrown such a monkey wrench into the flow of production that it will be at least several months (some say late summer or early fall) before some important lines make their appearance in the stores in significant volume. Admiral refrigerators and electric ranges expected in March were held up by strikes in plants supplying motor components, according to the Wall Street Journal. Norge automatic washers and refrigerators were also held up for lack of fractional horsepower motors because the plants that customarily turned them out were shut down by strikes. The general effect of strikes on other well-known brands of electrical appliances such as G.E. and Westinghouse is of course a matter of obvious inference from mere reading of daily headlines. Consumers will just have to wait and make do, although reports reaching CR indicate that many washing machines like the one-hoss shay have "a general flavor of mild decay" and are suddenly going to pieces all at once. Consumers must not assume that because they read advertising of various household items, or see them displayed in store windows, that they are actually on sale, ready to wrap up and take home, as it were.

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PAINT for refurbishing old homes and putting a protective coat on newly-built houses made of wood will not be too plentiful this spring. The flax crop, which supplies linseed for the important paint oil, has been poor in Argentina for the last two years. Russia has been buying up South American supplies at higher prices than U.S. traders can pay under present OPA price ceilings. Lead, an important pigment for outside paint, is also scarce, and the British have been able to outbid us on available supplies, reports the Wall Street Journal.

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THE COMMONLY-SOLD LOAF of commercial white bread may be attractive in appearance but it has no taste appeal, points out an advertisement in the Bakers' Helper. The suggestion is made that if the American baker is to sell more bread he must improve its flavor. With present plans of Washington officials for a darker loaf, bread consumption will undoubtedly decrease considerably. For those as likes 'em, there are plenty of potatoes. In fact a bumper crop is in the offing and the good old-fashioned habit of eating fried potatoes for breakfast may well provide a substitute for that dark bread toast. Hard hit will be the city folks accustomed to eating breakfast on the run in a corner drugstore. Fried potatoes can't be prepared in an electric toaster.

* * *

EVEN IF 1946 AUTOMOBILES were available in any sizable number (and they aren't), many accessories would be missing. Prospective owners who couldn't get delivery on their orders may comfort themselves with the fact that if they could many customary "extras" like heaters, car radios, seat covers, and other items would have been lacking. Perhaps it will pay to wait for at least another year, if the family car can be still held together by careful driving and faithful servicing.

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THERE WAS GOING TO BE LOTS OF CLOTHING on the market right after the first of the year (1946 not 1947), remember? One of the gentlemen who was reported as making that prediction was Price Chief of the OPA, himself. As any man who does not have an excellent stock of pre-war shirts will testify, white shirts at a reasonable price just aren't!--anywhere. Stores from New York to California either have no shirts of the desired type or have so few that they have to dole them out from such small stocks that the supply is gone in an hour or two. There are plenty of high-priced sport shirts selling for around $10, but the OPA's price experts apparently hold firmly to the opinion that they can store up merit somewhere by keeping down the cost of essential items of living

even if it means keeping them off the market altogether. Just think how much money a man can save by not buying needed shirts--unless he has to buy the exclusive $10 numbers. Perhaps like Alice in Wonderland we shall wake up one of these days and say with her sister "It was a curious dream."

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EGGS CAN BE PRESERVED in times of abundance and low price for use later in the year when they are expensive and scarce. There is reason to believe that the present high prices and short supply of feed as determined by government restrictions will force many farmers to liquidate their flocks this year, with the result that next year eggs will be expensive and difficult to get. Very good directions for putting eggs down in water glass are to be found in Circular 111, put out by the University of Montana Agricultural Experiment Station, Bozeman, Mont. Quite likely information can be secured from your own state experiment station also.

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NEW PRODUCTS: Fur-Tone is a product now being sold in department stores, asserted to be a "guaranteed furrier's method" for cleaning and glazing, killing moths and larvae; a "home furcleaner, safe--easy--practical--ready to use." Analysis indicates that the product is about one-third sawdust and about two-thirds cleaning solvents; the solvents are a mixture of carbon tetrachloride and naphtha of a type commonly used by fur cleaners.

A product of this type should never be used in a closed or poorly ventilated space, as the fumes of carbon tetrachloride are quite poisonous, naphtha fumes being likewise harmful. If possible, a product of this sort should be used out-of-doors, or in a room with a good draft through, with all windows open to the outside.

Although Fur-Tone was found to be non-flammable, the maker wisely advises that it be kept away from an open flame, as a mixture of carbon tetrachloride and naphtha may become ignitible after a time as evaporation of one of the solvents takes place at a different rate than the other. On this account, care should be taken that the product is at no time exposed to the danger of ignition as by a stove or other heating appliance at a high temperature; even the flick of an electric light switch might produce a spark which could set a fire or cause an explosion.

Furtex is another fur-cleaning preparation that has been analyzed recently. It was a mixture intended to be added to water, with which it produces a lather, and was found to consist of about 97% water and about 3% of a soap substitute (fatty sulphonated alcohol) with possibly a small amount of meta- and pyrophosphates of soda. The manufacturer's claims that the product will add luster and rejuvenate furs are not warranted. It does possess good cleansing properties and has some value in removing dirt and some stains which are water-soluble or can be emulsified by a detergent. However, it is doubtful if stains can be removed completely in a fully satisfactory way by any method which is practicable for home use.

Cream Shampoos from time to time make their appearance on the cosmetic market. The leading journal of the trade recommends a good grade of lather-type shaving cream for such purpose. Rayve Creme Shampoo (Raymond Laboratories, Inc., St. Paul 1), 3-oz. jar, 60 cents, was recently analyzed and found to consist essentially of water, sulfated organic detergent (a soap substitute), a superfatting material, and small amounts of mineral oil and paraffin, sodium bicarbonate, sodium sulfate, and sodium chloride, perfumed. The superfatting material included is a desirable addition as it would help to counteract the dryness of scalp and hair often caused by some of the sulfated detergents.

A little of the soapless detergents goes a long way. It should be kept in mind also that some of the soapless detergents do not lather well the first time they are used. The particular sulfated alcohol used in Rayve seems to be of this type, for users reported that a poor lather was obtained on the first "soaping" of the hair, but Rayve lathered very well the second time it was applied. Thrifty users should bear this in mind and work only a small amount of the cream into the hair the first time. (The natural tendency would be to increase the amount applied.) The product will give a satisfactory shampoo, but like most of the soap substitutes it is extremely expensive compared to soap. Some beauty shops are reported to charge more for a "cream" shampoo than for one which requires only the customary liquid soap shampoo.

PHONOGRAPH RECORDS

By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Bath: *Cornish Rhapsody.* Harriet Cohen (piano) with London Symphony Orchestra under composer. Columbia 7440. $1. Following *Warsaw Concerto*, comes this aimless music from the English film, "Love Story."
Interpretation AA
Fidelity of Recording B

Beethoven: *Symphony No. 2.* Pittsburgh Symphony Orchestra under Reiner. 8 sides, Columbia Set 597. $4.50. Neither performance nor recording of this less important Beethoven symphony displaces the Boston Symphony's $4 Victor Set 625 now on my shelves. **Interpretation B**
Fidelity of Recording B

Bizet: *Symphony in C Major* (7 sides) & *Carmen—Prelude to Act III* (1 side). Philharmonic-Symphony Orchestra of New York under Rodzinski. Columbia Set 596. $4.50. Dashing, enchanting, second rank symphony by a 17-year-old which reminds one, occasionally, of his later *Carmen* and *L'Arlesienne*. Performance superior to Victor Set 721, London Philharmonic. Columbia's recording—bright in current American fashion, in contrast to Victor's deficiency in highs but louder lows in English fashion. Overall, Columbia Set 596 wins. **Interpretation AA**
Fidelity of Recording AA

Berlioz: *The Roman Carnival—Overture.* Boston Symphony Orchestra under Koussevitzky. 2 sides, Victor 11-9008. $1. Outstanding disk. **Interpretation AA**
Fidelity of Recording AA

Borodin: *Prince Igor—Polovtsian Dances.* Philadelphia Orchestra under Ormandy. 2 sides, Columbia 12269. $1. Incomplete orchestral version. Discriminating collectors will prefer the comprehensive, orchestral-choral Columbia Set X54, $2.50. **Interpretation A**
Fidelity of Recording A

Chopiniana. Robin Hood Dell Orchestra under Mitropoulos. 6 sides, Columbia Set 598. $3.50. Orchestral arrangements—"travesties" is a more appropriate word—of five Chopin piano compositions. Exaggerated conducting, sloppy playing, muffled recording. **Interpretation C**
Fidelity of Recording B

Couperin: *Overture and Allegro* (arr. Milhaud). Minneapolis Symphony Orchestra under Mitropoulos. 2 sides, Columbia 12161. $1. Rather dull music and performance, plus bad recording. **Interpretation B**
Fidelity of Recording C

Ellington: *Black, Brown and Beige.* Duke Ellington and His Orchestra. 4 sides, Victor Set SP9. $2.25. Colorful—but only Ellington worshippers are likely to request a repeat performance. **Interpretation AA**
Fidelity of Recording A

Handel: *The Messiah—Hallelujah Chorus* & **Mendelssohn:** *War March of the Priests.* Boston Pops Orchestra under Fiedler. 2 sides. Victor 11-8985. $1. Played with spirit. Echo sometimes clouds detail. **Interpretation AA**
Fidelity of Recording A

Herold: *Zampa—Overture.* Philharmonic-Symphony Orchestra of New York under Kurtz. 2 sides. Columbia 12270. $1. Century old "pop" concert favorite, played well but not with distinction. **Interpretation A**
Fidelity of Recording AA

Humperdinck: *Hansel and Gretel—Dream Pantomine.* National Symphony Orchestra under Kindler. 2 sides, Victor 11-8948. $1. Understanding performance, excellent recording. **Interpretation AA**
Fidelity of Recording AA

Mahler: *Symphony No. 4.* Philharmonic-Symphony Orchestra of New York under Walter with Desi Halban (soprano). 12 sides, Columbia Set 589. $6.50. Valuable addition to the catalogue. If you are unfamiliar with Mahler's symphonies, artistic descendants of Beethoven's through Bruckner's, hear this set. **Interpretation AA**
Fidelity of Recording AA

McDonald: *My Country At War.* Philadelphia Orchestra under Ormandy. 6 sides, Columbia Set 592. $3.50. Symphonic suite of no great importance. **Interpretation AA**
Fidelity of Recording AA

CHAMBER AND INSTRUMENTAL

Beethoven: *Sonata No. 5* (Op 102, No. 2). Piatigorsky (cello) & Berkowitz (piano). 4 sides. Columbia Set X258. $2.50. Complicated work, even for the connoisseur.
Interpretation A
Fidelity of Recording B

Debussy: *Preludes*, Book I. Schmitz (piano). 14 sides, Victor Set 1031. $5.75. Twelve impressions of Sails, Dance of Puck, Footprints In the Snow, the Engulfed Cathedral, etc. Marvelous performance, excellent recording. Yet, I will not part with Gieseking's subtle performances, satisfactorily recorded in Columbia Set 352. **Interpretation AA**
Fidelity of Recording AA

Schubert: *Melodies.* Marek Weber and His Orchestra. 8 sides, Columbia Set C109. $2.50. Hodge podge of snatches which musically sensitive persons will not welcome.
Interpretation B
Fidelity of Recording B

White: *Sea Chanty for Harp and Strings.* Edna Phillips (harp) and string quintet under Ormandy. 4 sides, Columbia Set X259. $2.50. Pleasant though unimportant suite based on three chanties. **Interpretation AA**
Fidelity of Recording A

Elizabethan Suite (arr. Bartlett). Bartlett and Robertson (duo-pianos). 4 sides, Columbia Set X256. $2.50. Unexciting old English music for virginals arranged for pianos.
Interpretation AA
Fidelity of Recording B

VOCAL

Mendelssohn: *Eight Duets.* Hulda Lashanska (soprano) & Kerstin Thorborg (mezzo). 4 sides, Victor 10-902 1/2. $2. Unfamiliar duets that hold little interest. Sung in German, no translation provided. **Interpretation A**
Fidelity of Recording AA

LIGHT AND MISCELLANEOUS

Love Songs. Rise Stevens (mezzo). 8 sides, Columbia Set 595. $3.50. From musical shows and films sung, at times, with less feeling than we have a right to expect. Included are "Dearly Beloved," "Lover Come Back to Me," "The Man I Love," "Lover," etc. **Interpretation A**
Fidelity of Recording B

A Victor Borge Program. 8 sides, Columbia Set C111, $2.50. Principally, spoken nonsense ("Phonetic Punctation" is very funny) with schmalzy piano playing tossed in. Enjoyed most in the presence of friends. **Interpretation A**
Fidelity of Recording B